Full wwPDB X-ray Structure Validation Report ⓘ

Jun 16, 2024 – 11:04 PM EDT

PDB ID	:	5GM1
Title	:	Crystal structure of methyltransferase TleD complexed with SAH
Authors	:	Yu, F.; Li, M.J.; Xu, C.Y.; Zhou, H.; Sun, B.; Wang, Z.J.; Xu, Q.; Xie, M.Y.; Zuo, G.; Huang, P.; Wang, Q.S.; He, J.H.
Deposited on	:	2016-07-12
Resolution	:	2.50 Å(reported)

The following versions of software and data (see references ⓘ) were used in the production of this report:

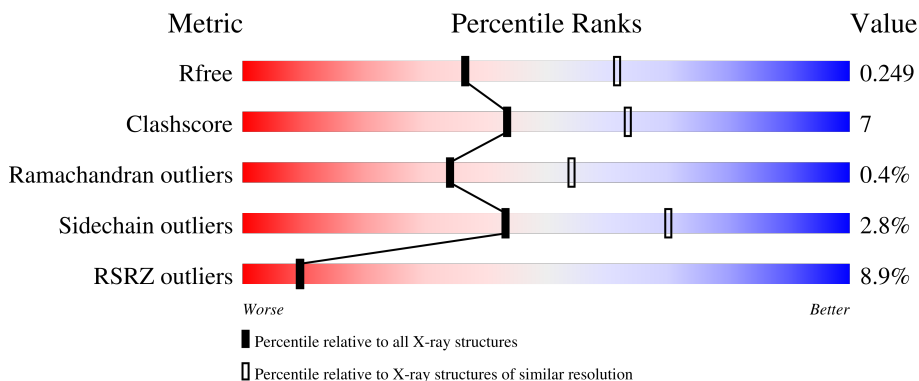|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.37.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.37.1

1   Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.50 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.
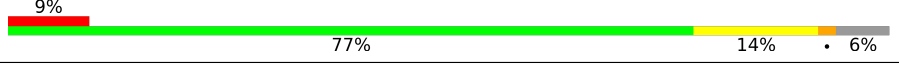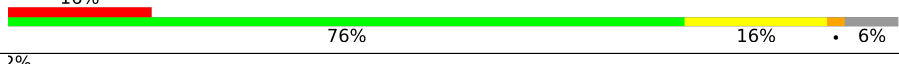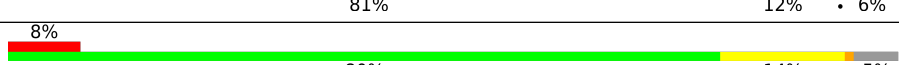
Metric	Percentile Ranks	Value
Rfree		0.249
Clashscore		7
Ramachandran outliers		0.4%
Sidechain outliers		2.8%
RSRZ outliers		8.9%

Worse — *Better*

▮ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	4661 (2.50-2.50)
Clashscore	141614	5346 (2.50-2.50)
Ramachandran outliers	138981	5231 (2.50-2.50)
Sidechain outliers	138945	5233 (2.50-2.50)
RSRZ outliers	127900	4559 (2.50-2.50)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	297	79% 15% 5%
1	B	297	79% 14% • 6%
1	C	297	% 76% 17% • 6%
1	D	297	% 81% 12% • 6%
1	E	297	% 80% 13% • 6%

Continued on next page...

WORLDWIDE PDB
PROTEIN DATA BANK

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	F	297	% 80% 14% 6%
1	G	297	9% 77% 14% 6%
1	H	297	16% 76% 16% 6%
1	I	297	2% 84% 9% 6%
1	J	297	6% 81% 13% 5%
1	K	297	4% 82% 12% 5%
1	L	297	8% 81% 12% 6%
1	M	297	8% 80% 14% 5%
1	N	297	26% 81% 12% 5%
1	O	297	4% 77% 16% 6%
1	P	297	6% 81% 12% 6%
1	Q	297	18% 81% 13% 5%
1	R	297	40% 66% 27% 5%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	SAH	R	301	-	-	-	X

2 Entry composition ⓘ

There are 3 unique types of molecules in this entry. The entry contains 40182 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called O-methylransferase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	281	Total 2184	C 1384	N 371	O 417	S 12	0	2	0
1	B	280	Total 2164	C 1372	N 367	O 414	S 11	0	1	0
1	C	280	Total 2157	C 1370	N 365	O 411	S 11	0	0	0
1	D	280	Total 2169	C 1375	N 370	O 413	S 11	0	1	0
1	E	279	Total 2149	C 1364	N 364	O 410	S 11	0	0	0
1	F	280	Total 2158	C 1369	N 366	O 412	S 11	0	0	0
1	G	280	Total 2158	C 1369	N 366	O 412	S 11	0	0	0
1	H	279	Total 2149	C 1364	N 364	O 410	S 11	0	0	0
1	I	280	Total 2169	C 1375	N 370	O 413	S 11	3	1	0
1	J	281	Total 2167	C 1374	N 368	O 414	S 11	0	0	0
1	K	281	Total 2166	C 1375	N 367	O 413	S 11	0	0	0
1	L	280	Total 2158	C 1369	N 366	O 412	S 11	0	0	0
1	M	281	Total 2184	C 1384	N 371	O 417	S 12	0	2	0
1	N	281	Total 2184	C 1384	N 371	O 417	S 12	0	2	0
1	O	280	Total 2158	C 1369	N 366	O 412	S 11	0	0	0
1	P	280	Total 2158	C 1369	N 366	O 412	S 11	0	0	0

Continued on next page...

W O R L D W I D E
wwPDB
PROTEIN DATA BANK

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	Q	281	Total	C	N	O	S	0	2	0
			2184	1384	371	417	12			
1	R	281	Total	C	N	O	S	0	1	0
			2176	1379	370	416	11			

There are 144 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	290	LEU	-	expression tag	UNP A0A077K7L1
A	291	GLU	-	expression tag	UNP A0A077K7L1
A	292	HIS	-	expression tag	UNP A0A077K7L1
A	293	HIS	-	expression tag	UNP A0A077K7L1
A	294	HIS	-	expression tag	UNP A0A077K7L1
A	295	HIS	-	expression tag	UNP A0A077K7L1
A	296	HIS	-	expression tag	UNP A0A077K7L1
A	297	HIS	-	expression tag	UNP A0A077K7L1
B	290	LEU	-	expression tag	UNP A0A077K7L1
B	291	GLU	-	expression tag	UNP A0A077K7L1
B	292	HIS	-	expression tag	UNP A0A077K7L1
B	293	HIS	-	expression tag	UNP A0A077K7L1
B	294	HIS	-	expression tag	UNP A0A077K7L1
B	295	HIS	-	expression tag	UNP A0A077K7L1
B	296	HIS	-	expression tag	UNP A0A077K7L1
B	297	HIS	-	expression tag	UNP A0A077K7L1
C	290	LEU	-	expression tag	UNP A0A077K7L1
C	291	GLU	-	expression tag	UNP A0A077K7L1
C	292	HIS	-	expression tag	UNP A0A077K7L1
C	293	HIS	-	expression tag	UNP A0A077K7L1
C	294	HIS	-	expression tag	UNP A0A077K7L1
C	295	HIS	-	expression tag	UNP A0A077K7L1
C	296	HIS	-	expression tag	UNP A0A077K7L1
C	297	HIS	-	expression tag	UNP A0A077K7L1
D	290	LEU	-	expression tag	UNP A0A077K7L1
D	291	GLU	-	expression tag	UNP A0A077K7L1
D	292	HIS	-	expression tag	UNP A0A077K7L1
D	293	HIS	-	expression tag	UNP A0A077K7L1
D	294	HIS	-	expression tag	UNP A0A077K7L1
D	295	HIS	-	expression tag	UNP A0A077K7L1
D	296	HIS	-	expression tag	UNP A0A077K7L1
D	297	HIS	-	expression tag	UNP A0A077K7L1
E	290	LEU	-	expression tag	UNP A0A077K7L1
E	291	GLU	-	expression tag	UNP A0A077K7L1

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
E	292	HIS	-	expression tag	UNP A0A077K7L1
E	293	HIS	-	expression tag	UNP A0A077K7L1
E	294	HIS	-	expression tag	UNP A0A077K7L1
E	295	HIS	-	expression tag	UNP A0A077K7L1
E	296	HIS	-	expression tag	UNP A0A077K7L1
E	297	HIS	-	expression tag	UNP A0A077K7L1
F	290	LEU	-	expression tag	UNP A0A077K7L1
F	291	GLU	-	expression tag	UNP A0A077K7L1
F	292	HIS	-	expression tag	UNP A0A077K7L1
F	293	HIS	-	expression tag	UNP A0A077K7L1
F	294	HIS	-	expression tag	UNP A0A077K7L1
F	295	HIS	-	expression tag	UNP A0A077K7L1
F	296	HIS	-	expression tag	UNP A0A077K7L1
F	297	HIS	-	expression tag	UNP A0A077K7L1
G	290	LEU	-	expression tag	UNP A0A077K7L1
G	291	GLU	-	expression tag	UNP A0A077K7L1
G	292	HIS	-	expression tag	UNP A0A077K7L1
G	293	HIS	-	expression tag	UNP A0A077K7L1
G	294	HIS	-	expression tag	UNP A0A077K7L1
G	295	HIS	-	expression tag	UNP A0A077K7L1
G	296	HIS	-	expression tag	UNP A0A077K7L1
G	297	HIS	-	expression tag	UNP A0A077K7L1
H	290	LEU	-	expression tag	UNP A0A077K7L1
H	291	GLU	-	expression tag	UNP A0A077K7L1
H	292	HIS	-	expression tag	UNP A0A077K7L1
H	293	HIS	-	expression tag	UNP A0A077K7L1
H	294	HIS	-	expression tag	UNP A0A077K7L1
H	295	HIS	-	expression tag	UNP A0A077K7L1
H	296	HIS	-	expression tag	UNP A0A077K7L1
H	297	HIS	-	expression tag	UNP A0A077K7L1
I	290	LEU	-	expression tag	UNP A0A077K7L1
I	291	GLU	-	expression tag	UNP A0A077K7L1
I	292	HIS	-	expression tag	UNP A0A077K7L1
I	293	HIS	-	expression tag	UNP A0A077K7L1
I	294	HIS	-	expression tag	UNP A0A077K7L1
I	295	HIS	-	expression tag	UNP A0A077K7L1
I	296	HIS	-	expression tag	UNP A0A077K7L1
I	297	HIS	-	expression tag	UNP A0A077K7L1
J	290	LEU	-	expression tag	UNP A0A077K7L1
J	291	GLU	-	expression tag	UNP A0A077K7L1
J	292	HIS	-	expression tag	UNP A0A077K7L1
J	293	HIS	-	expression tag	UNP A0A077K7L1

Continued on next page...

*Continued from previous page...*

Chain	Residue	Modelled	Actual	Comment	Reference
J	294	HIS	-	expression tag	UNP A0A077K7L1
J	295	HIS	-	expression tag	UNP A0A077K7L1
J	296	HIS	-	expression tag	UNP A0A077K7L1
J	297	HIS	-	expression tag	UNP A0A077K7L1
K	290	LEU	-	expression tag	UNP A0A077K7L1
K	291	GLU	-	expression tag	UNP A0A077K7L1
K	292	HIS	-	expression tag	UNP A0A077K7L1
K	293	HIS	-	expression tag	UNP A0A077K7L1
K	294	HIS	-	expression tag	UNP A0A077K7L1
K	295	HIS	-	expression tag	UNP A0A077K7L1
K	296	HIS	-	expression tag	UNP A0A077K7L1
K	297	HIS	-	expression tag	UNP A0A077K7L1
L	290	LEU	-	expression tag	UNP A0A077K7L1
L	291	GLU	-	expression tag	UNP A0A077K7L1
L	292	HIS	-	expression tag	UNP A0A077K7L1
L	293	HIS	-	expression tag	UNP A0A077K7L1
L	294	HIS	-	expression tag	UNP A0A077K7L1
L	295	HIS	-	expression tag	UNP A0A077K7L1
L	296	HIS	-	expression tag	UNP A0A077K7L1
L	297	HIS	-	expression tag	UNP A0A077K7L1
M	290	LEU	-	expression tag	UNP A0A077K7L1
M	291	GLU	-	expression tag	UNP A0A077K7L1
M	292	HIS	-	expression tag	UNP A0A077K7L1
M	293	HIS	-	expression tag	UNP A0A077K7L1
M	294	HIS	-	expression tag	UNP A0A077K7L1
M	295	HIS	-	expression tag	UNP A0A077K7L1
M	296	HIS	-	expression tag	UNP A0A077K7L1
M	297	HIS	-	expression tag	UNP A0A077K7L1
N	290	LEU	-	expression tag	UNP A0A077K7L1
N	291	GLU	-	expression tag	UNP A0A077K7L1
N	292	HIS	-	expression tag	UNP A0A077K7L1
N	293	HIS	-	expression tag	UNP A0A077K7L1
N	294	HIS	-	expression tag	UNP A0A077K7L1
N	295	HIS	-	expression tag	UNP A0A077K7L1
N	296	HIS	-	expression tag	UNP A0A077K7L1
N	297	HIS	-	expression tag	UNP A0A077K7L1
O	290	LEU	-	expression tag	UNP A0A077K7L1
O	291	GLU	-	expression tag	UNP A0A077K7L1
O	292	HIS	-	expression tag	UNP A0A077K7L1
O	293	HIS	-	expression tag	UNP A0A077K7L1
O	294	HIS	-	expression tag	UNP A0A077K7L1
O	295	HIS	-	expression tag	UNP A0A077K7L1

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
O	296	HIS	-	expression tag	UNP A0A077K7L1
O	297	HIS	-	expression tag	UNP A0A077K7L1
P	290	LEU	-	expression tag	UNP A0A077K7L1
P	291	GLU	-	expression tag	UNP A0A077K7L1
P	292	HIS	-	expression tag	UNP A0A077K7L1
P	293	HIS	-	expression tag	UNP A0A077K7L1
P	294	HIS	-	expression tag	UNP A0A077K7L1
P	295	HIS	-	expression tag	UNP A0A077K7L1
P	296	HIS	-	expression tag	UNP A0A077K7L1
P	297	HIS	-	expression tag	UNP A0A077K7L1
Q	290	LEU	-	expression tag	UNP A0A077K7L1
Q	291	GLU	-	expression tag	UNP A0A077K7L1
Q	292	HIS	-	expression tag	UNP A0A077K7L1
Q	293	HIS	-	expression tag	UNP A0A077K7L1
Q	294	HIS	-	expression tag	UNP A0A077K7L1
Q	295	HIS	-	expression tag	UNP A0A077K7L1
Q	296	HIS	-	expression tag	UNP A0A077K7L1
Q	297	HIS	-	expression tag	UNP A0A077K7L1
R	290	LEU	-	expression tag	UNP A0A077K7L1
R	291	GLU	-	expression tag	UNP A0A077K7L1
R	292	HIS	-	expression tag	UNP A0A077K7L1
R	293	HIS	-	expression tag	UNP A0A077K7L1
R	294	HIS	-	expression tag	UNP A0A077K7L1
R	295	HIS	-	expression tag	UNP A0A077K7L1
R	296	HIS	-	expression tag	UNP A0A077K7L1
R	297	HIS	-	expression tag	UNP A0A077K7L1

- Molecule 2 is S-ADENOSYL-L-HOMOCYSTEINE (three-letter code: SAH) (formula: $C_{14}H_{20}N_6O_5S$).

SAH
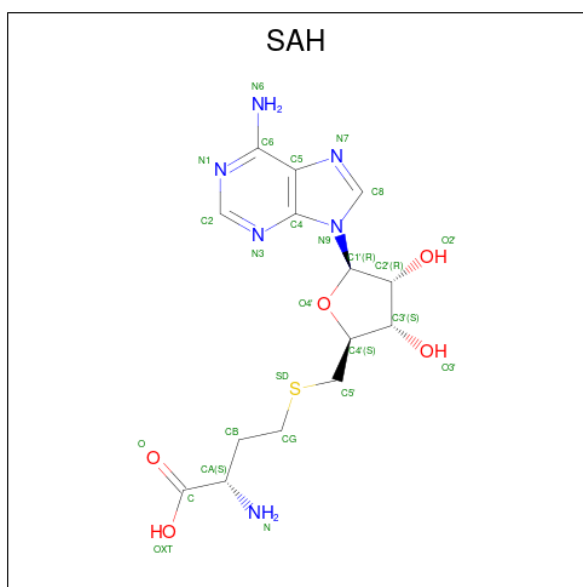
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	B	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	B	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	C	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	D	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	E	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	F	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	G	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	H	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	I	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	J	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	K	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	L	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	M	1	Total	C	N	O	S	0	0
			26	14	6	5	1		

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	N	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	O	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	P	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	Q	1	Total	C	N	O	S	0	0
			26	14	6	5	1		
2	R	1	Total	C	N	O	S	0	0
			26	14	6	5	1		

- Molecule 3 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	81	Total	O	0	0
			81	81		
3	B	90	Total	O	0	0
			90	90		
3	C	51	Total	O	0	0
			51	51		
3	D	35	Total	O	0	0
			35	35		
3	E	48	Total	O	0	0
			48	48		
3	F	72	Total	O	0	0
			72	72		
3	G	22	Total	O	0	0
			22	22		
3	H	19	Total	O	0	0
			19	19		
3	I	46	Total	O	0	0
			46	46		
3	J	21	Total	O	0	0
			21	21		
3	K	11	Total	O	0	0
			11	11		
3	L	21	Total	O	0	0
			21	21		
3	M	28	Total	O	0	0
			28	28		
3	N	19	Total	O	0	0
			19	19		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	O	38	Total 38	O 38	0	0
3	P	25	Total 25	O 25	0	0
3	Q	24	Total 24	O 24	0	0
3	R	45	Total 45	O 45	0	0

3 Residue-property plots ⓘ

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.
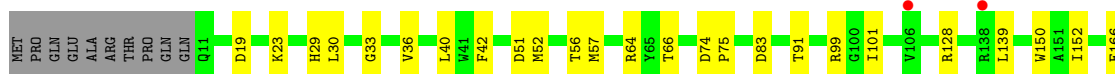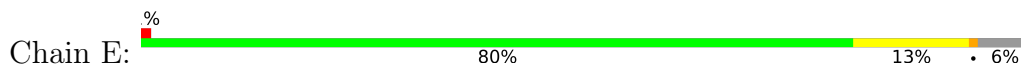
- Molecule 1: O-methylransferase

Chain A:
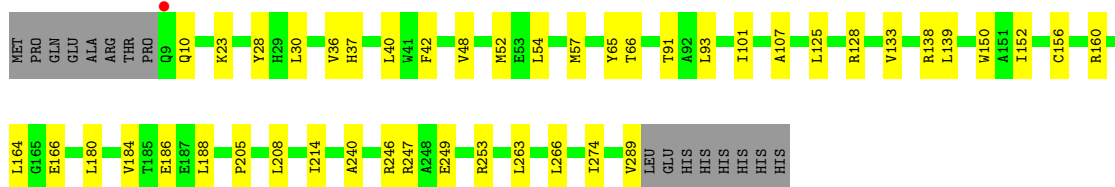
- Molecule 1: O-methylransferase

Chain B:
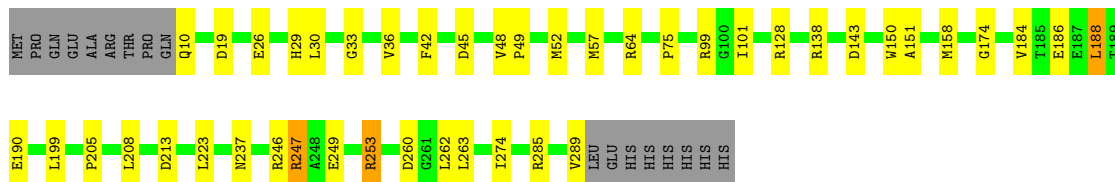
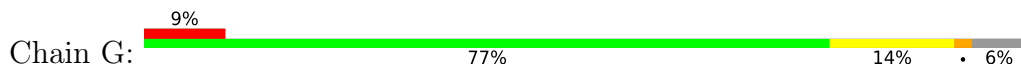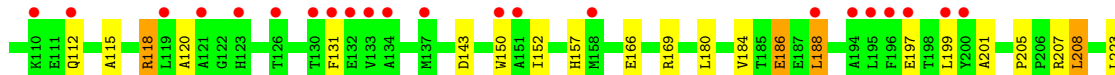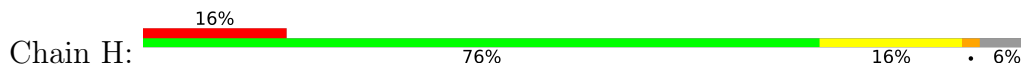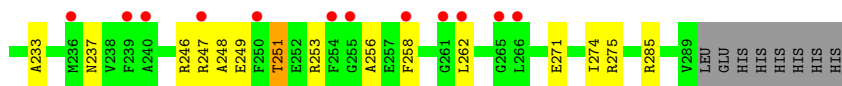- Molecule 1: O-methylransferase

Chain C:

- Molecule 1: O-methylransferase

Chain D:

L180 E181 S182 V183 V184 T185 E186 E187 L188 L199 P205 L223 E249 R253 L262 R285 V289 LEU GLU HIS HIS HIS HIS HIS

• Molecule 1: O-methylransferase

Chain E:

%

80% 13% 6%

MET PRO GLN GLU ALA ARG THR PRO GLN GLN Q11 D19 K23 H29 L30 G33 V36 L40 W41 F42 D51 M52 T56 M57 R64 Y65 T66 D74 P75 D83 T91 R99 G100 I101 V106 R128 R138 L139 W150 A151 I152 E166

A167 W168 L180 V183 V184 P205 F239 A240 L241 R247 T251 E252 R253 A256 L263 L273 T277 R285 K286 V289 LEU HIS HIS HIS HIS HIS

• Molecule 1: O-methylransferase

Chain F:

%

80% 14% 6%

MET PRO GLN GLU ALA ARG THR PRO GLN Q10 D22 K23 F24 G25 E26 V27 L32 V36 L40 W41 F42 P49 M57 D63 R64 Y65 T66 T91 I101 R128 R138 L139 D143 W150 C156 R160 E166 R169 V184 T185 E186

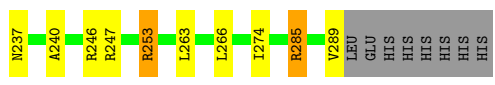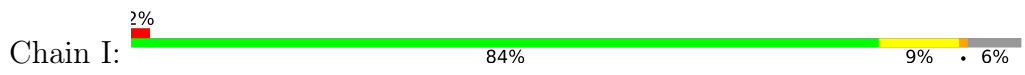L195 P205 L208 L223 L241 R246 R247 T251 E252 R253 A256 L263 E271 I274 R275 R285 V289 LEU GLU HIS HIS HIS HIS HIS

• Molecule 1: O-methylransferase

Chain G:

9%

77% 14% 6%

MET PRO GLN GLU ALA ARG THR PRO GLN Q10 T13 V17 W20 Y21 Y28 H29 L30 V36 L40 W41 F42 P49 M52 M57 T66 P75 H80 T91 R99 G100 I101 T104 R128 D135 A136 E142 W150 A151 I152 C156

H157 M158 E166 L180 V184 T185 E186 E187 L188 P191 E192 L195 F196 L199 Y200 A201 A202 N203 V204 P205 P206 R207 L208 F211 F212 L223 A240 L241 G242 V243 Y244 S245 R246 R247 F250 T251 E252 R253 A256 D260 G261 L262 L263 L266 E271 T272
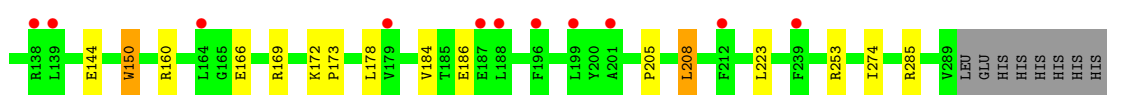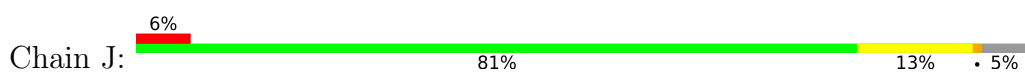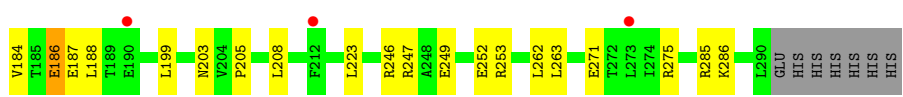
L273 I274 R275 K276 R285 V289 LEU HIS HIS HIS HIS HIS HIS

• Molecule 1: O-methylransferase

Chain H:

16%

76% 16% 6%

MET PRO GLN GLU ALA ARG THR PRO GLN GLN Q11 A14 V17 W20 G25 E26 L30 T31 L32 V36 F42 P43 A46 M52 M57 D63 R64 D74 P75 K76 A77 C86 G87 R90 L93 R99 G100 I101 A102 V103 T104 G105 V106 A107

K110 E111 Q112 A115 R118 L119 A120 A121 G122 H123 T126 T130 F131 E132 V133 A134 M137 D143 W150 A151 I152 H157 M158 E166 R169 L180 V184 T185 E186 E187 L188 A194 L195 F196 E197 T198 L199 Y200 A201 P205 P206 R207 L208 L223

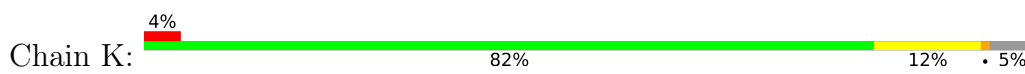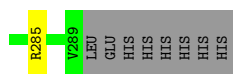A233 M236 N237 V238 F239 A240 R246 R247 A248 E249 F250 T251 E252 R253 F254 G255 A256 E257 F258 G261 L262 G265 L266 E271 I274 R275 R285 V289 LEU GLU HIS HIS HIS HIS HIS

• Molecule 1: O-methylransferase

Chain I:

MET PRO GLN GLU ALA ARG THR PRO GLN Q10 A14 D15 Y21 D22 G25 H29 G33 F42 M52 M57 T66 T91 I101 G124 R128 D143 E144 W150 V184 T185 E186 L188 T198 P205 L208 F220 L223

N237 A240 R246 R247 R253 L263 L266 I274 R285 V289 LEU GLU HIS HIS HIS HIS HIS

• Molecule 1: O-methylransferase

Chain J:

MET PRO GLN GLU ALA ARG THR PRO Q9 E26 H29 L30 G33 I40 W41 F42 P43 A46 M52 E53 L54 M57 Y65 T66 L69 D74 P75 G85 T91 R99 G100 I101 T104 G105 V106 A107 V108 S109 K110 I113 R128 L129 T130 F131

R138 L139 E144 W150 R160 L164 G165 E166 R169 K172 P173 L178 V179 V184 T185 E186 E187 L188 F196 L199 Y200 A201 P205 L208 F212 L223 F239 R253 I274 R285 V289 LEU GLU HIS HIS HIS HIS HIS

• Molecule 1: O-methylransferase

Chain K:

MET PRO GLN GLU ALA ARG THR PRO GLN Q10 Q11 V12 V17 G18 D19 W20 Y21 D22 K23 F24 G25 E26 L30 V36 L40 W41 F42 M52 M57 D67 E71 S109 K110 E111 Q112 R138 D143 W150 A151 I152 M158 V170 L171 L180

V184 T185 E186 E187 L188 T189 E190 L199 N203 V204 P205 L208 F212 L223 R246 R247 A248 E249 E252 R253 L262 L263 E271 T272 L273 I274 R275 R285 K286 L290 GLU HIS HIS HIS HIS HIS

• Molecule 1: O-methylransferase

Chain L:

MET PRO GLN GLU ALA ARG THR PRO GLN Q10 V17 D22 E26 H29 L30 G33 V36 F42 D51 M57 D63 R64 P75 H80 L81 L82 G85 C86 G87 T88 R99 T104 A107 V108 S109 K110 E111 Q112 R118 L125 T126 E127

R128 L129 T130 F131 E132 V133 A134 E144 S145 F146 W150 A151 I152 G174 V179 L180 E181 S182 V183 V184 T185 E186 E187 L188 E197 A201 P205 L208 L223 K226 F239 Y244 S245 R246 F250 T251 E252 R253 F254 G255 L262 L266 L273 I274
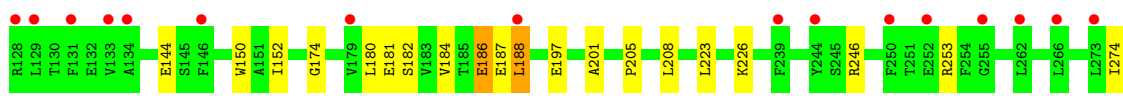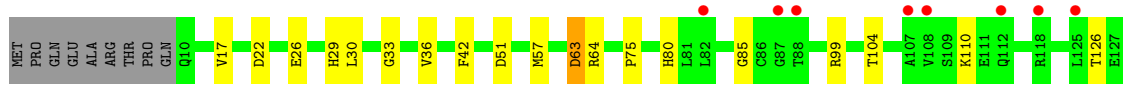
R285 V289 LEU GLU HIS HIS HIS HIS HIS

• Molecule 1: O-methylransferase
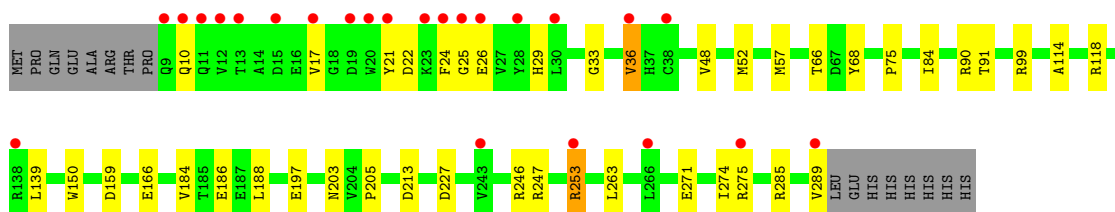
Chain M:

• Molecule 1: O-methylransferase
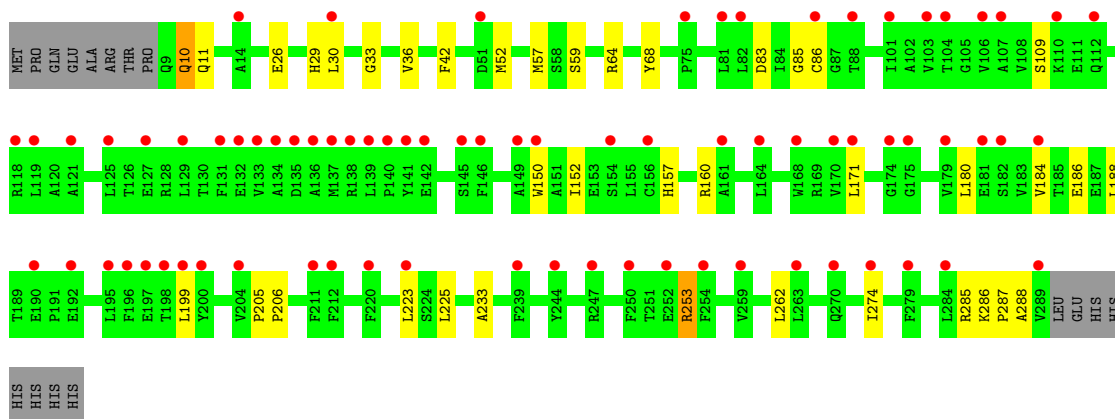
Chain N:

• Molecule 1: O-methylransferase

Chain O:

• Molecule 1: O-methylransferase

Chain P:
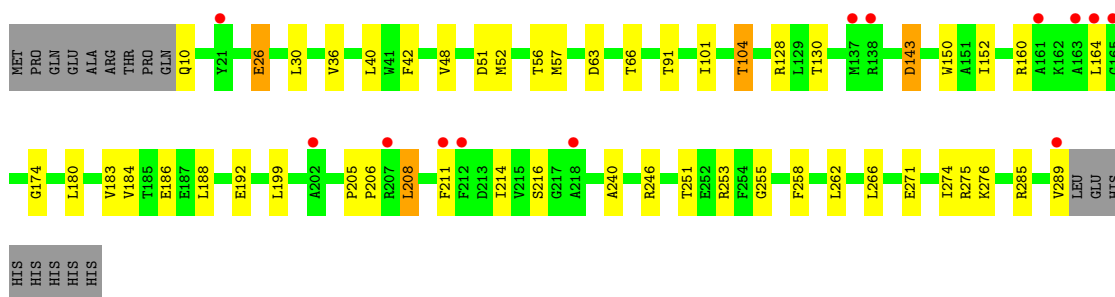
• Molecule 1: O-methyransferase

Chain Q:

• Molecule 1: O-methyltransferase

Chain R:
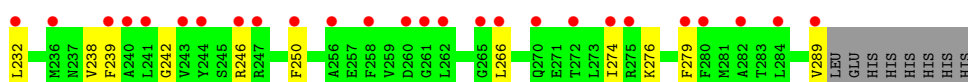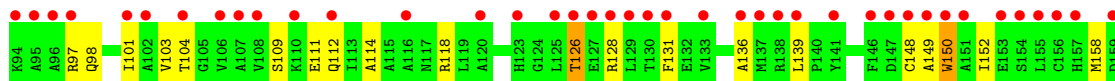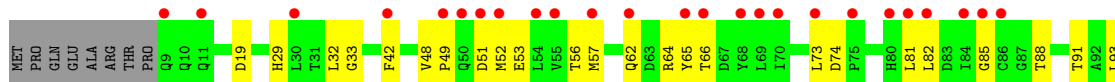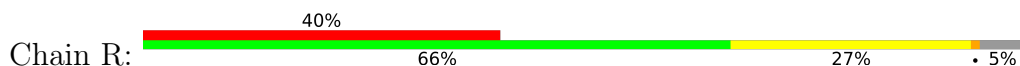
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	259.62Å 152.90Å 154.79Å 90.00° 93.33° 90.00°	Depositor
Resolution (Å)	102.27 – 2.50 154.53 – 2.50	Depositor EDS
% Data completeness (in resolution range)	99.0 (102.27-2.50) 99.0 (154.53-2.50)	Depositor EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.54 (at 2.52Å)	Xtriage
Refinement program	PHENIX (1.10.1_2155: ???)	Depositor
R, R_{free}	0.207 , 0.248 0.208 , 0.249	Depositor DCC
R_{free} test set	10316 reflections (5.01%)	wwPDB-VP
Wilson B-factor (Å^2)	46.4	Xtriage
Anisotropy	0.291	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 58.4	EDS
L-test for twinning[2]	$< \vert L \vert > = 0.48$, $< L^2 > = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	40182	wwPDB-VP
Average B, all atoms (Å^2)	74.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.27% of the height of the origin peak. No significant pseudotranslation is detected.*

---

[1]Intensities estimated from amplitudes.
[2]Theoretical values of $< \vert L \vert >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section:
SAH

The Z score for a bond length (or angle) is the number of standard deviations the observed value
is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an
outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or
angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$|Z|$>5	RMSZ	#$|Z|$>5
1	A	0.29	0/2229	0.48	0/3024
1	B	0.28	0/2209	0.46	0/2998
1	C	0.28	0/2202	0.46	0/2989
1	D	0.27	0/2214	0.45	0/3004
1	E	0.28	0/2194	0.47	0/2978
1	F	0.28	0/2203	0.47	0/2990
1	G	0.26	0/2203	0.45	0/2990
1	H	0.27	0/2194	0.44	0/2978
1	I	0.27	0/2214	0.47	0/3004
1	J	0.27	0/2212	0.44	0/3002
1	K	0.26	0/2211	0.44	0/3001
1	L	0.26	0/2203	0.44	0/2990
1	M	0.28	0/2229	0.46	0/3024
1	N	0.26	0/2229	0.44	0/3024
1	O	0.27	0/2203	0.46	0/2990
1	P	0.27	0/2203	0.45	0/2990
1	Q	0.28	0/2229	0.45	0/3024
1	R	0.26	0/2221	0.45	0/3014
All	All	0.27	0/39802	0.45	0/54014

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms
and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen

atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2184	0	2139	29	0
1	B	2164	0	2120	31	0
1	C	2157	0	2119	33	0
1	D	2169	0	2128	25	0
1	E	2149	0	2108	26	0
1	F	2158	0	2116	30	0
1	G	2158	0	2116	33	0
1	H	2149	0	2108	41	0
1	I	2169	0	2128	23	0
1	J	2167	0	2124	30	0
1	K	2166	0	2127	25	0
1	L	2158	0	2116	26	0
1	M	2184	0	2139	36	0
1	N	2184	0	2139	34	0
1	O	2158	0	2116	33	0
1	P	2158	0	2116	32	0
1	Q	2184	0	2139	36	0
1	R	2176	0	2131	80	1
2	A	26	0	19	1	0
2	B	52	0	38	4	0
2	C	26	0	19	1	0
2	D	26	0	19	3	0
2	E	26	0	19	1	0
2	F	26	0	19	1	0
2	G	26	0	19	1	0
2	H	26	0	19	1	0
2	I	26	0	19	0	0
2	J	26	0	19	3	0
2	K	26	0	19	3	0
2	L	26	0	19	3	0
2	M	26	0	19	1	0
2	N	26	0	19	4	0
2	O	26	0	19	2	0
2	P	26	0	19	3	0
2	Q	26	0	19	0	0
2	R	26	0	19	1	0
3	A	81	0	0	2	0
3	B	90	0	0	8	0
3	C	51	0	0	7	0
3	D	35	0	0	3	0
3	E	48	0	0	1	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	F	72	0	0	6	0
3	G	22	0	0	6	0
3	H	19	0	0	10	0
3	I	46	0	0	8	0
3	J	21	0	0	3	0
3	K	11	0	0	4	0
3	L	21	0	0	7	0
3	M	28	0	0	10	0
3	N	19	0	0	7	0
3	O	38	0	0	4	0
3	P	25	0	0	13	0
3	Q	24	0	0	12	0
3	R	45	0	0	27	0
All	All	40182	0	38590	525	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 7.

All (525) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:417:HOH:O	2:H:301:SAH:SD	1.97	1.23
1:F:22:ASP:O	3:F:401:HOH:O	1.67	1.09
1:R:57:MET:SD	3:R:442:HOH:O	2.14	1.03
1:N:86:CYS:SG	3:N:411:HOH:O	2.22	0.98
1:G:166:GLU:OE1	3:G:401:HOH:O	1.82	0.95
1:L:144:GLU:OE2	3:L:401:HOH:O	1.84	0.95
1:P:213:ASP:OD1	3:P:401:HOH:O	1.89	0.91
1:D:138:ARG:NH1	3:D:401:HOH:O	2.04	0.90
2:P:301:SAH:SD	3:P:425:HOH:O	2.30	0.89
1:R:238:VAL:O	3:R:401:HOH:O	1.90	0.88
1:P:151:ALA:O	3:P:402:HOH:O	1.91	0.88
1:O:63:ASP:OD2	3:O:401:HOH:O	1.89	0.87
1:M:24:PHE:N	3:M:401:HOH:O	2.06	0.86
1:R:148:CYS:SG	3:R:434:HOH:O	2.35	0.85
3:M:423:HOH:O	2:N:301:SAH:SD	2.35	0.84
1:R:19:ASP:OD1	3:R:402:HOH:O	1.95	0.84
3:Q:421:HOH:O	1:R:57:MET:SD	2.36	0.83
1:M:227:ASP:O	3:M:403:HOH:O	1.97	0.83
1:I:144:GLU:OE2	3:I:401:HOH:O	1.95	0.82
1:H:223:LEU:HD11	1:H:285:ARG:HE	1.43	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:74:ASP:OD1	3:R:403:HOH:O	1.96	0.82
1:M:57:MET:SD	3:N:414:HOH:O	2.38	0.82
1:M:197:GLU:O	3:M:404:HOH:O	1.97	0.81
1:A:28:TYR:OH	3:A:401:HOH:O	2.00	0.80
1:P:52:MET:O	3:P:403:HOH:O	2.00	0.79
1:O:216:SER:OG	3:O:402:HOH:O	2.00	0.78
1:F:184:VAL:HG13	1:F:205:PRO:HG2	1.66	0.78
1:R:48:VAL:O	3:R:404:HOH:O	2.02	0.78
1:K:170:VAL:N	3:K:401:HOH:O	2.16	0.77
1:M:184:VAL:HG13	1:M:205:PRO:HG2	1.67	0.77
1:K:184:VAL:HG13	1:K:205:PRO:HG2	1.67	0.77
1:G:184:VAL:HG13	1:G:205:PRO:HG2	1.68	0.76
1:O:184:VAL:HG13	1:O:205:PRO:HG2	1.68	0.75
1:N:64:ARG:O	3:N:401:HOH:O	2.05	0.75
1:L:184:VAL:HG13	1:L:205:PRO:HG2	1.68	0.75
1:F:63:ASP:OD2	3:F:403:HOH:O	2.05	0.74
1:I:184:VAL:HG13	1:I:205:PRO:HG2	1.68	0.73
1:J:40:LEU:O	3:J:401:HOH:O	2.05	0.73
1:E:251:THR:HG22	1:E:256:ALA:HA	1.68	0.73
1:R:62:GLN:OE1	3:R:405:HOH:O	2.05	0.73
1:I:253:ARG:NH1	3:I:404:HOH:O	2.20	0.73
1:C:125:LEU:O	1:C:127:GLU:N	2.20	0.72
1:D:249:GLU:N	3:D:402:HOH:O	2.15	0.72
1:H:86:CYS:SG	3:H:402:HOH:O	2.46	0.72
1:J:184:VAL:HG13	1:J:205:PRO:HG2	1.71	0.72
1:O:101:ILE:O	1:O:128:ARG:NH1	2.23	0.72
1:E:184:VAL:HG13	1:E:205:PRO:HG2	1.72	0.71
1:N:287:PRO:O	3:N:402:HOH:O	2.08	0.71
1:P:184:VAL:HG13	1:P:205:PRO:HG2	1.72	0.71
1:I:124:GLY:O	3:I:402:HOH:O	2.06	0.71
1:O:285:ARG:HH21	1:Q:48:VAL:HB	1.55	0.71
1:N:68:TYR:N	3:N:401:HOH:O	2.24	0.71
1:B:247:ARG:HG3	1:B:263:LEU:HD11	1.72	0.71
1:E:64:ARG:HG2	1:F:40:LEU:HD23	1.72	0.71
1:A:23:LYS:O	1:Q:138:ARG:NH1	2.24	0.71
1:H:248:ALA:N	3:H:401:HOH:O	2.24	0.71
1:Q:185:THR:OG1	3:Q:403:HOH:O	2.10	0.70
1:B:19:ASP:OD1	3:B:401:HOH:O	2.09	0.70
1:G:52:MET:HB2	1:H:274:ILE:HG23	1.73	0.70
1:Q:252:GLU:O	3:Q:402:HOH:O	2.09	0.69
1:P:227:ASP:OD1	3:P:405:HOH:O	2.10	0.69

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:274:ILE:HG23	1:R:52:MET:HB2	1.73	0.69
1:C:186:GLU:O	1:C:207:ARG:NH2	2.25	0.69
1:R:82:LEU:HA	3:R:410:HOH:O	1.91	0.69
1:H:184:VAL:HG13	1:H:205:PRO:HG2	1.73	0.69
1:L:63:ASP:OD1	3:L:403:HOH:O	2.11	0.68
1:R:49:PRO:O	3:R:407:HOH:O	2.11	0.68
1:G:275:ARG:N	3:G:404:HOH:O	2.25	0.68
1:M:10:GLN:OE1	3:M:405:HOH:O	2.10	0.68
1:G:247:ARG:HG3	1:G:263:LEU:HD11	1.74	0.68
1:E:247:ARG:HG3	1:E:263:LEU:HD11	1.74	0.68
1:C:247:ARG:HG3	1:C:263:LEU:HD11	1.76	0.68
1:N:288:ALA:N	3:N:404:HOH:O	2.20	0.68
1:F:253:ARG:NH1	3:F:406:HOH:O	2.27	0.67
1:M:274:ILE:HG23	1:N:52[B]:MET:HB2	1.77	0.67
1:C:220:PHE:O	3:C:402:HOH:O	2.12	0.67
1:R:97:ARG:O	3:R:408:HOH:O	2.11	0.67
1:R:211:PHE:O	3:R:409:HOH:O	2.13	0.67
1:B:75:PRO:HG2	1:B:99:ARG:HG3	1.77	0.67
1:G:80:HIS:HE2	1:G:104:THR:HG1	1.41	0.67
1:A:30:LEU:O	1:B:246:ARG:NH2	2.27	0.67
1:K:36:VAL:HB	2:L:301:SAH:HB2	1.77	0.67
1:Q:31:THR:OG1	3:Q:404:HOH:O	2.13	0.66
1:G:101:ILE:O	1:G:128:ARG:NH1	2.28	0.66
1:D:184:VAL:HG13	1:D:205:PRO:HG2	1.77	0.66
1:I:220:PHE:O	3:I:403:HOH:O	2.13	0.66
1:M:90:ARG:NH1	3:M:402:HOH:O	1.96	0.66
1:B:10:GLN:OE1	3:B:402:HOH:O	2.14	0.66
1:N:285:ARG:NH2	3:R:404:HOH:O	2.27	0.66
1:K:247:ARG:HG3	1:K:263:LEU:HD11	1.76	0.66
1:O:30:LEU:O	1:P:246:ARG:NH2	2.28	0.66
1:M:52[B]:MET:HB2	1:N:274:ILE:HG23	1.77	0.65
1:Q:30:LEU:O	1:R:246:ARG:NH2	2.30	0.65
1:Q:275:ARG:O	3:Q:403:HOH:O	2.14	0.65
1:F:101:ILE:O	1:F:128:ARG:NH1	2.29	0.65
1:F:223:LEU:HD11	1:F:285:ARG:HE	1.60	0.65
1:M:213:ASP:OD1	3:M:406:HOH:O	2.13	0.65
1:B:184:VAL:HG11	1:B:188:LEU:HD11	1.79	0.65
1:D:199:LEU:HD22	1:D:262:LEU:HD23	1.79	0.65
1:N:184:VAL:HG13	1:N:205:PRO:HG2	1.78	0.65
1:C:184:VAL:HG13	1:C:205:PRO:HG2	1.78	0.64
1:Q:184:VAL:HG13	1:Q:205:PRO:HG2	1.78	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:113:ILE:HD12	1:J:131:PHE:HB3	1.78	0.64
1:H:87:GLY:O	3:H:402:HOH:O	2.15	0.64
1:I:42:PHE:HZ	1:I:57:MET:HB3	1.62	0.64
1:C:274:ILE:HG23	1:D:52:MET:HB2	1.80	0.63
1:G:30:LEU:O	1:H:246:ARG:NH2	2.31	0.63
1:G:42:PHE:HZ	1:G:57:MET:HB3	1.62	0.63
1:N:152:ILE:HG23	1:N:180:LEU:HD22	1.79	0.63
1:O:199:LEU:HD22	1:O:262:LEU:HD23	1.79	0.63
1:C:227:ASP:OD1	3:C:403:HOH:O	2.16	0.62
1:N:85:GLY:O	2:N:301:SAH:N	2.33	0.62
1:H:115:ALA:HA	1:H:118:ARG:HH11	1.65	0.62
1:B:48:VAL:O	1:D:285[A]:ARG:NH2	2.33	0.62
1:F:247:ARG:NH1	3:F:409:HOH:O	2.32	0.62
1:K:246:ARG:NH2	1:L:30:LEU:O	2.32	0.62
1:B:101:ILE:O	1:B:128:ARG:NH1	2.33	0.62
1:O:26:GLU:OE1	1:P:253:ARG:NH2	2.33	0.61
1:B:184:VAL:HG13	1:B:205:PRO:HG2	1.82	0.61
1:K:52:MET:HB2	1:L:274:ILE:HG23	1.82	0.61
1:A:247:ARG:HG3	1:A:263:LEU:HD11	1.81	0.61
1:C:200:TYR:O	1:C:202:ALA:N	2.33	0.61
1:H:42:PHE:HZ	1:H:57:MET:HB3	1.66	0.61
1:Q:249:GLU:N	3:Q:410:HOH:O	2.33	0.61
1:A:253:ARG:NH1	1:B:26:GLU:OE1	2.33	0.61
1:E:42:PHE:HZ	1:E:57:MET:HB3	1.65	0.61
2:B:301:SAH:N	3:B:406:HOH:O	2.21	0.61
1:H:186:GLU:O	1:H:207:ARG:NH2	2.34	0.60
1:P:247:ARG:NH2	3:P:404:HOH:O	2.08	0.60
1:J:75:PRO:HG2	1:J:99:ARG:HG3	1.82	0.60
1:H:99:ARG:O	3:H:403:HOH:O	2.15	0.59
1:O:52:MET:HB2	1:P:274:ILE:HG23	1.84	0.59
1:H:199:LEU:HD22	1:H:262:LEU:HD23	1.84	0.59
1:L:126:THR:N	3:L:410:HOH:O	2.35	0.59
1:Q:42:PHE:HZ	1:Q:57:MET:HB3	1.67	0.59
1:R:131:PHE:N	3:R:406:HOH:O	2.08	0.59
1:O:42:PHE:HZ	1:O:57:MET:HB3	1.68	0.59
1:G:49:PRO:O	3:G:403:HOH:O	2.17	0.59
1:I:223:LEU:HD11	1:I:285:ARG:HG3	1.84	0.59
1:F:247:ARG:HG3	1:F:263:LEU:HD11	1.84	0.59
1:H:233:ALA:O	1:H:237:ASN:ND2	2.35	0.59
1:K:223:LEU:HD11	1:K:285:ARG:HE	1.66	0.58
1:R:81:LEU:O	3:R:410:HOH:O	2.17	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:101:ILE:O	1:R:128:ARG:NH1	2.37	0.58
1:Q:52[B]:MET:HB2	1:R:274:ILE:HG23	1.83	0.58
1:C:64:ARG:HG2	1:D:40:LEU:HD23	1.86	0.58
1:N:59:SER:OG	3:N:403:HOH:O	2.17	0.58
1:I:101:ILE:O	1:I:128:ARG:NH1	2.36	0.58
1:J:223:LEU:HD11	1:J:285:ARG:HE	1.67	0.58
1:P:174:GLY:N	3:P:407:HOH:O	2.36	0.58
1:D:152:ILE:HG23	1:D:180:LEU:HD22	1.84	0.57
1:P:42:PHE:HZ	1:P:57:MET:HB3	1.69	0.57
1:A:184:VAL:HG13	1:A:205:PRO:HG2	1.86	0.57
1:N:199:LEU:HD22	1:N:262:LEU:HD23	1.86	0.57
1:B:174:GLY:O	1:B:285:ARG:NH1	2.38	0.57
1:C:36:VAL:HB	2:D:301:SAH:HB2	1.86	0.57
1:Q:118:ARG:NH1	3:Q:401:HOH:O	2.03	0.57
1:P:97:ARG:NH2	3:P:411:HOH:O	2.34	0.57
1:R:232:LEU:HD22	1:R:279:PHE:CD1	2.40	0.57
1:B:260:ASP:OD1	3:B:403:HOH:O	2.18	0.57
1:G:274:ILE:HG23	1:H:52:MET:HB2	1.87	0.57
1:Q:22:ASP:OD1	1:R:109:SER:OG	2.20	0.57
1:Q:40:LEU:HD23	1:R:64:ARG:HG2	1.87	0.57
1:Q:52[A]:MET:HB2	1:R:274:ILE:HG23	1.85	0.57
1:R:166:GLU:OE2	1:R:169:ARG:NH2	2.31	0.57
1:F:251:THR:HG22	1:F:256:ALA:HA	1.87	0.56
1:D:85:GLY:O	2:D:301:SAH:N	2.39	0.56
1:K:30:LEU:O	1:L:246:ARG:NH2	2.37	0.56
1:R:152:ILE:HG23	1:R:180:LEU:HD22	1.87	0.56
1:D:42:PHE:HZ	1:D:57:MET:HB3	1.70	0.56
1:L:80:HIS:HE2	1:L:104:THR:HG1	1.45	0.56
1:L:223:LEU:HD11	1:L:285:ARG:HE	1.70	0.56
1:R:188:LEU:O	1:R:192:GLU:HB2	2.05	0.56
2:O:301:SAH:H8	1:P:17:VAL:HG11	1.86	0.56
1:M:253:ARG:NH1	1:N:26:GLU:OE1	2.39	0.56
1:P:286:LYS:O	3:P:407:HOH:O	2.18	0.56
1:R:66:THR:OG1	3:R:411:HOH:O	2.18	0.56
2:K:301:SAH:HB2	1:L:36:VAL:HB	1.88	0.56
1:E:74:ASP:OD1	1:E:99:ARG:NH1	2.36	0.56
1:I:247:ARG:HG3	1:I:263:LEU:HD11	1.87	0.56
1:R:104:THR:HB	3:R:410:HOH:O	2.05	0.56
1:R:250:PHE:HE1	3:R:422:HOH:O	1.88	0.56
1:E:30:LEU:O	1:F:246:ARG:NH2	2.39	0.56
2:L:301:SAH:N	3:L:404:HOH:O	2.15	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:40:LEU:HD23	1:L:64:ARG:HG2	1.89	0.55
1:H:223:LEU:HD11	1:H:285:ARG:NE	2.18	0.55
1:J:144:GLU:HG2	1:J:172:LYS:HA	1.88	0.55
1:L:152:ILE:HG23	1:L:180:LEU:HD22	1.88	0.55
1:G:157:HIS:CE1	3:H:405:HOH:O	2.60	0.55
1:O:255:GLY:O	3:O:403:HOH:O	2.17	0.55
1:E:75:PRO:HG2	1:E:99:ARG:HG3	1.88	0.55
1:A:52[B]:MET:HB2	1:B:274:ILE:HG23	1.89	0.55
1:G:66:THR:HG23	1:G:91:THR:HG23	1.87	0.55
1:A:246:ARG:HD2	1:A:249:GLU:OE1	2.07	0.55
1:B:10:GLN:N	3:B:414:HOH:O	2.38	0.55
1:H:258:PHE:HA	3:H:411:HOH:O	2.07	0.54
1:K:152:ILE:HG23	1:K:180:LEU:HD22	1.88	0.54
1:A:42:PHE:HZ	1:A:57:MET:HB3	1.73	0.54
1:H:249:GLU:N	3:H:401:HOH:O	1.97	0.54
1:R:109:SER:HB3	1:R:112:GLN:HB2	1.88	0.54
1:R:91:THR:HG21	1:R:152:ILE:HD12	1.89	0.54
1:O:183:VAL:HG11	1:O:208:LEU:HD23	1.88	0.54
1:C:199:LEU:HD22	1:C:262:LEU:HD23	1.90	0.54
1:F:42:PHE:HZ	1:F:57:MET:HB3	1.73	0.54
1:G:253:ARG:NH1	1:H:26:GLU:OE1	2.35	0.54
1:M:26:GLU:OE1	1:N:253:ARG:NH1	2.41	0.54
1:Q:239:PHE:HB2	1:R:32:LEU:HD21	1.89	0.54
1:Q:32:LEU:HG	3:Q:404:HOH:O	2.07	0.54
1:A:152:ILE:HG23	1:A:180:LEU:HD22	1.90	0.54
1:F:49:PRO:O	3:F:404:HOH:O	2.18	0.53
1:M:271:GLU:OE2	1:M:275:ARG:NE	2.41	0.53
1:A:138:ARG:NH1	3:A:409:HOH:O	2.41	0.53
1:D:101:ILE:O	1:D:128:ARG:NH1	2.41	0.53
1:H:143:ASP:OD1	1:H:169:ARG:NH1	2.38	0.53
1:N:42:PHE:HZ	1:N:57:MET:HB3	1.74	0.53
1:C:115:ALA:O	1:C:118:ARG:HG2	2.08	0.53
1:H:77:ALA:HA	3:H:403:HOH:O	2.09	0.53
1:H:120:ALA:HB2	1:H:131:PHE:HE2	1.74	0.53
1:F:285:ARG:NH2	3:F:414:HOH:O	2.42	0.53
1:J:42:PHE:HZ	1:J:57:MET:HB3	1.74	0.53
1:L:42:PHE:HZ	1:L:57:MET:HB3	1.74	0.53
1:O:274:ILE:HG23	1:P:52:MET:HB2	1.91	0.52
1:R:88:THR:O	3:R:412:HOH:O	2.19	0.52
1:C:285:ARG:NH2	3:C:411:HOH:O	2.41	0.52
3:Q:404:HOH:O	1:R:239:PHE:HD1	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:52:MET:HB2	1:F:274:ILE:HG23	1.92	0.52
1:O:271:GLU:OE2	1:O:275:ARG:NE	2.43	0.52
1:G:158:MET:O	1:G:203:ASN:ND2	2.42	0.52
1:K:271:GLU:OE2	1:K:275:ARG:NE	2.42	0.52
1:R:184:VAL:HG13	1:R:205:PRO:HG2	1.92	0.52
1:A:246:ARG:NH2	1:B:30:LEU:O	2.41	0.52
1:I:22:ASP:OD1	1:J:109:SER:OG	2.19	0.52
1:I:247:ARG:NH1	3:I:407:HOH:O	2.42	0.52
1:M:22:ASP:OD1	1:N:109:SER:OG	2.24	0.52
1:R:74:ASP:CG	3:R:403:HOH:O	2.42	0.52
1:C:93:LEU:HD22	1:C:119:LEU:HG	1.91	0.52
1:J:101:ILE:O	1:J:128:ARG:NH1	2.43	0.52
1:J:160:ARG:N	3:J:405:HOH:O	2.42	0.52
1:I:52:MET:HB2	1:J:274:ILE:HG23	1.91	0.51
1:G:246:ARG:HH21	1:G:250:PHE:HZ	1.57	0.51
1:K:71:GLU:OE1	3:K:402:HOH:O	2.19	0.51
1:Q:21:TYR:O	3:Q:406:HOH:O	2.19	0.51
1:R:42:PHE:HZ	1:R:57:MET:HB3	1.74	0.51
1:R:187:GLU:O	1:R:188:LEU:HB2	2.11	0.51
1:M:52[A]:MET:HB2	1:N:274:ILE:HG23	1.93	0.51
1:N:83:ASP:HB3	1:N:86:CYS:HB3	1.92	0.51
1:J:65:TYR:O	1:J:69:LEU:HG	2.11	0.51
1:F:143:ASP:OD1	1:F:169:ARG:NH1	2.38	0.51
1:J:166:GLU:OE2	1:J:169:ARG:NH2	2.33	0.51
1:F:138:ARG:NH1	3:I:404:HOH:O	2.44	0.51
1:A:274:ILE:HG23	1:B:52:MET:HB2	1.91	0.50
1:G:276:LYS:N	3:G:404:HOH:O	2.34	0.50
1:M:285:ARG:HH21	1:O:48:VAL:HB	1.76	0.50
1:R:246:ARG:NH1	3:R:423:HOH:O	2.43	0.50
1:Q:139:LEU:H	1:Q:166:GLU:HG2	1.76	0.50
1:G:40:LEU:HD23	1:H:64:ARG:HG2	1.93	0.50
1:C:101:ILE:O	1:C:128:ARG:NH1	2.44	0.50
1:E:152:ILE:HG23	1:E:180:LEU:HD22	1.94	0.50
1:H:74:ASP:OD1	1:H:99:ARG:NH1	2.38	0.50
1:R:229:SER:HA	1:R:279:PHE:HB3	1.93	0.50
1:D:113:ILE:O	1:D:117:ASN:ND2	2.44	0.50
1:I:274:ILE:HG23	1:J:52:MET:HB2	1.93	0.50
1:R:19:ASP:HA	3:R:402:HOH:O	2.10	0.50
1:D:188:LEU:N	3:D:408:HOH:O	2.36	0.50
1:M:29:HIS:HA	1:M:33:GLY:O	2.11	0.50
1:O:152:ILE:HG23	1:O:180:LEU:HD22	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:199:LEU:HD22	1:K:262:LEU:HD23	1.94	0.49
1:L:85:GLY:O	2:L:301:SAH:N	2.44	0.49
1:E:83:ASP:OD2	3:E:401:HOH:O	2.18	0.49
1:G:152:ILE:HG23	1:G:180:LEU:HD22	1.94	0.49
1:H:87:GLY:N	3:H:402:HOH:O	2.45	0.49
1:I:246:ARG:NH2	1:J:30:LEU:O	2.46	0.49
1:M:274:ILE:HG23	1:N:52[A]:MET:HB2	1.94	0.49
1:R:73:LEU:HB2	1:R:178:LEU:HD22	1.95	0.49
1:F:139:LEU:H	1:F:166:GLU:HG2	1.77	0.49
1:M:68:TYR:OH	3:M:407:HOH:O	2.14	0.49
2:M:301:SAH:HB2	1:N:36:VAL:HB	1.95	0.49
1:R:194:ALA:O	1:R:198:THR:OG1	2.28	0.49
1:R:242:GLY:HA2	3:R:441:HOH:O	2.12	0.49
1:K:223:LEU:HD11	1:K:285:ARG:NE	2.27	0.49
1:O:164:LEU:HD12	1:O:214:ILE:HG22	1.95	0.49
1:R:170:VAL:HG23	3:R:416:HOH:O	2.11	0.49
1:H:251:THR:HG22	1:H:256:ALA:HA	1.94	0.49
1:B:49:PRO:O	1:D:285[B]:ARG:NH1	2.40	0.48
1:E:42:PHE:CZ	1:E:57:MET:HB3	2.47	0.48
1:K:67:ASP:OD2	3:K:403:HOH:O	2.20	0.48
1:L:223:LEU:HD11	1:L:285:ARG:NE	2.27	0.48
1:P:164:LEU:HD12	1:P:214:ILE:HG22	1.94	0.48
1:B:151:ALA:O	3:B:404:HOH:O	2.19	0.48
1:E:101:ILE:O	1:E:128:ARG:NH1	2.46	0.48
1:L:110:LYS:HD3	3:L:413:HOH:O	2.13	0.48
1:N:223:LEU:HD11	1:N:285:ARG:NE	2.28	0.48
1:O:104:THR:HA	1:O:130:THR:O	2.13	0.48
2:C:301:SAH:HB2	1:D:36:VAL:HB	1.95	0.48
1:M:75:PRO:HG2	1:M:99:ARG:HG3	1.96	0.48
1:G:188:LEU:N	3:G:407:HOH:O	2.38	0.48
1:E:36:VAL:HB	2:F:301:SAH:HB2	1.94	0.48
1:A:101:ILE:O	1:A:128:ARG:NH1	2.47	0.48
1:M:66:THR:HG23	1:M:91:THR:HG23	1.96	0.48
1:O:253:ARG:HH11	1:P:30:LEU:HD11	1.79	0.48
1:P:85:GLY:O	2:P:301:SAH:N	2.47	0.48
2:E:301:SAH:HB2	1:F:36:VAL:HB	1.95	0.48
1:R:85:GLY:O	2:R:301:SAH:N	2.47	0.48
1:R:88:THR:HB	3:R:412:HOH:O	2.13	0.48
1:R:183:VAL:HG11	1:R:208:LEU:HD23	1.96	0.48
1:M:246:ARG:NH2	1:N:30:LEU:O	2.47	0.47
1:R:98:GLN:HA	3:R:440:HOH:O	2.13	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:40:LEU:HD23	1:B:64:ARG:HG2	1.97	0.47
1:J:74:ASP:OD1	1:J:99:ARG:NH1	2.43	0.47
1:J:144:GLU:HG2	1:J:173:PRO:HD3	1.97	0.47
1:C:40:LEU:HD23	1:D:64:ARG:HG2	1.97	0.47
1:C:138:ARG:NH1	3:C:414:HOH:O	2.47	0.47
1:J:107:ALA:HA	2:J:301:SAH:N3	2.30	0.47
1:B:246:ARG:HD2	1:B:249:GLU:OE1	2.15	0.47
1:P:247:ARG:HG3	1:P:263:LEU:HD11	1.95	0.47
2:B:302:SAH:SD	2:B:302:SAH:N	2.87	0.47
1:D:223:LEU:HD11	1:D:285[B]:ARG:HD3	1.96	0.47
1:H:197:GLU:HA	1:H:201:ALA:HA	1.97	0.47
1:M:247:ARG:HG3	1:M:263:LEU:HD11	1.96	0.47
1:M:285:ARG:NH2	1:O:48:VAL:O	2.47	0.47
1:R:168:TRP:NE1	1:R:219:GLY:O	2.48	0.47
1:A:139:LEU:H	1:A:166:GLU:HG2	1.80	0.47
1:B:223:LEU:HD11	1:B:285:ARG:HE	1.78	0.47
1:K:246:ARG:HD2	1:K:249:GLU:OE1	2.14	0.47
1:L:75:PRO:HG2	1:L:99:ARG:HG3	1.96	0.47
1:N:223:LEU:HD11	1:N:285:ARG:HE	1.79	0.47
1:P:75:PRO:HG2	1:P:99:ARG:HG3	1.97	0.47
1:B:42:PHE:HZ	1:B:57:MET:HB3	1.79	0.47
1:D:50:GLN:NE2	1:F:285:ARG:HH12	2.13	0.47
1:M:36:VAL:HB	2:N:301:SAH:HB2	1.96	0.47
1:G:201:ALA:HB1	1:H:17:VAL:HG22	1.97	0.47
1:K:171:LEU:O	1:K:286:LYS:NZ	2.37	0.47
1:O:40:LEU:HD23	1:P:64:ARG:HG2	1.97	0.47
1:K:42:PHE:HZ	1:K:57:MET:HB3	1.80	0.46
1:R:91:THR:HG21	1:R:152:ILE:CD1	2.45	0.46
1:E:139:LEU:H	1:E:166:GLU:HG2	1.81	0.46
1:A:156:CYS:HA	1:A:160:ARG:NH2	2.29	0.46
1:A:48:VAL:O	1:E:285:ARG:NH2	2.48	0.46
1:C:138:ARG:CZ	3:C:414:HOH:O	2.63	0.46
2:O:301:SAH:HB2	1:P:36:VAL:HB	1.98	0.46
1:R:239:PHE:HE2	1:R:266:LEU:HD21	1.80	0.46
1:C:246:ARG:HH22	1:D:30:LEU:HB3	1.81	0.46
1:M:48:VAL:HB	1:Q:285:ARG:HH21	1.81	0.46
1:R:82:LEU:HB3	1:R:149:ALA:HB2	1.96	0.46
1:C:94:LYS:NZ	3:C:409:HOH:O	2.36	0.46
1:I:237:ASN:HD22	1:J:54:LEU:HD13	1.80	0.46
1:E:19:ASP:HB3	1:E:23:LYS:NZ	2.30	0.46
1:H:152:ILE:HG23	1:H:180:LEU:HD22	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:114:ALA:O	1:R:118:ARG:HG3	2.16	0.46
1:A:107:ALA:O	1:A:133:VAL:HA	2.16	0.46
1:B:29:HIS:HA	1:B:33:GLY:O	2.16	0.46
1:G:135:ASP:OD1	1:G:136:ALA:N	2.49	0.46
1:I:143:ASP:N	1:I:143:ASP:OD1	2.49	0.46
1:K:186:GLU:HB3	1:K:187:GLU:H	1.60	0.46
1:A:23:LYS:HG2	1:Q:138:ARG:HH22	1.81	0.45
1:C:195:LEU:HD23	1:C:195:LEU:HA	1.84	0.45
1:E:239:PHE:HB2	1:F:32:LEU:HD21	1.98	0.45
1:M:25:GLY:N	3:M:401:HOH:O	1.94	0.45
1:M:203:ASN:OD1	1:N:11:GLN:N	2.47	0.45
1:R:188:LEU:O	1:R:189:THR:OG1	2.28	0.45
1:D:176:ASP:OD1	1:D:285[B]:ARG:HG3	2.17	0.45
1:R:232:LEU:HD22	1:R:279:PHE:HD1	1.81	0.45
1:C:65:TYR:OH	1:C:180:LEU:HD23	2.16	0.45
1:R:139:LEU:H	1:R:166:GLU:HG2	1.81	0.45
1:O:258:PHE:N	3:O:403:HOH:O	2.49	0.45
1:O:143:ASP:OD1	1:O:143:ASP:N	2.50	0.45
1:R:150:TRP:HB3	1:R:178:LEU:HB3	1.98	0.45
1:R:189:THR:O	1:R:193:THR:HG23	2.17	0.45
1:D:75:PRO:HG2	1:D:99:ARG:HG3	1.99	0.45
1:M:17:VAL:HG11	2:N:301:SAH:H8	1.98	0.45
1:B:213:ASP:OD1	3:B:405:HOH:O	2.21	0.45
1:J:223:LEU:HD11	1:J:285:ARG:NE	2.31	0.45
1:R:114:ALA:HB3	1:R:118:ARG:HH21	1.82	0.45
1:C:215:VAL:HG12	3:C:402:HOH:O	2.16	0.45
1:R:62:GLN:O	1:R:65:TYR:HB3	2.17	0.45
1:C:17:VAL:HG11	2:D:301:SAH:H8	1.99	0.45
1:I:91:THR:HG22	1:I:150:TRP:CZ2	2.52	0.45
1:F:271:GLU:OE2	1:F:275:ARG:NE	2.50	0.44
1:H:63:ASP:CG	1:H:90:ARG:HH21	2.19	0.44
1:M:84:ILE:O	3:M:408:HOH:O	2.20	0.44
1:P:66:THR:OG1	3:P:406:HOH:O	2.10	0.44
1:R:103:VAL:O	3:R:413:HOH:O	2.21	0.44
1:C:66:THR:HG23	1:C:91:THR:HG23	1.98	0.44
1:L:29:HIS:HA	1:L:33:GLY:O	2.16	0.44
1:O:51:ASP:H	1:O:56:THR:HG21	1.82	0.44
1:R:164:LEU:HD13	1:R:215:VAL:HG23	1.98	0.44
1:C:42:PHE:HZ	1:C:57:MET:HB3	1.82	0.44
1:C:223:LEU:HD11	1:C:285:ARG:HB2	1.98	0.44
1:D:134:ALA:HB1	1:D:140:PRO:HD3	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:168:TRP:CE2	1:E:286:LYS:HG3	2.52	0.44
1:F:223:LEU:HD11	1:F:285:ARG:NE	2.30	0.44
1:L:174:GLY:O	1:L:285:ARG:NH1	2.50	0.44
1:N:171:LEU:O	1:N:286:LYS:NZ	2.35	0.44
1:A:65:TYR:OH	1:A:180:LEU:HD23	2.17	0.44
1:J:66:THR:HG23	1:J:91:THR:HG23	2.00	0.44
1:Q:199:LEU:HD22	1:Q:262:LEU:HD23	1.99	0.44
1:H:87:GLY:O	1:H:112:GLN:HB3	2.17	0.44
1:R:215:VAL:O	1:R:218:ALA:HB3	2.18	0.44
1:E:66:THR:HG23	1:E:91:THR:HG23	2.00	0.44
1:L:188:LEU:N	3:L:412:HOH:O	2.50	0.44
1:G:186:GLU:HB3	1:G:187:GLU:H	1.64	0.44
1:O:206:PRO:HG2	1:O:211:PHE:HB2	1.98	0.44
1:R:29:HIS:HA	1:R:33:GLY:O	2.18	0.44
1:R:93:LEU:O	1:R:97:ARG:HG3	2.17	0.44
1:B:199:LEU:HD22	1:B:262:LEU:HD23	2.00	0.44
1:Q:37:HIS:O	1:R:62:GLN:NE2	2.39	0.44
1:D:181:GLU:HG3	1:D:182:SER:O	2.18	0.43
1:I:198:THR:OG1	3:I:405:HOH:O	2.21	0.43
1:K:112:GLN:OE1	2:K:301:SAH:O3'	2.24	0.43
1:P:278:ARG:NH2	3:P:413:HOH:O	2.42	0.43
1:P:101:ILE:O	1:P:128:ARG:NH1	2.51	0.43
1:Q:223:LEU:HD11	1:Q:285:ARG:HE	1.83	0.43
1:Q:278:ARG:NH1	3:Q:413:HOH:O	2.48	0.43
1:B:253:ARG:O	1:Q:138:ARG:HD3	2.18	0.43
1:M:21:TYR:HB2	1:N:109:SER:HB2	2.01	0.43
1:O:160:ARG:CZ	1:O:206:PRO:HD3	2.49	0.43
1:Q:22:ASP:HA	1:R:111:GLU:HB3	2.01	0.43
1:R:207:ARG:O	1:R:211:PHE:N	2.42	0.43
1:R:215:VAL:HA	1:R:218:ALA:HB3	2.00	0.43
1:G:156:CYS:O	1:G:203:ASN:HB2	2.18	0.43
1:K:158:MET:O	1:K:203:ASN:ND2	2.52	0.43
1:M:114:ALA:O	1:M:118:ARG:HG3	2.19	0.43
1:Q:288:ALA:N	3:Q:405:HOH:O	2.19	0.43
1:B:188:LEU:HD12	1:B:188:LEU:H	1.84	0.43
1:G:186:GLU:O	1:G:207:ARG:NH2	2.52	0.43
1:P:80:HIS:NE2	1:P:104:THR:OG1	2.38	0.43
1:P:287:PRO:C	3:P:407:HOH:O	2.57	0.43
1:N:225:LEU:O	1:Q:224:SER:HA	2.19	0.43
1:A:48:VAL:HB	1:E:285:ARG:HH21	1.84	0.43
1:C:157:HIS:ND1	1:C:201:ALA:O	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:240:ALA:HA	1:G:266:LEU:HD13	1.99	0.43
1:L:226:LYS:NZ	3:L:405:HOH:O	2.21	0.43
1:A:37:HIS:HD2	2:B:301:SAH:OXT	2.01	0.43
1:A:164:LEU:HD12	1:A:214:ILE:HG22	2.01	0.43
1:G:208:LEU:HD22	1:G:208:LEU:HA	1.91	0.43
1:Q:31:THR:HG22	1:R:246:ARG:HH21	1.84	0.43
1:B:143:ASP:N	1:B:143:ASP:OD1	2.50	0.42
1:R:53:GLU:O	1:R:57:MET:HG3	2.18	0.42
2:G:301:SAH:HB2	1:H:36:VAL:HB	1.99	0.42
1:H:271:GLU:OE2	1:H:275:ARG:NE	2.52	0.42
1:J:144:GLU:HG3	3:J:404:HOH:O	2.18	0.42
1:N:286:LYS:HA	1:N:287:PRO:HD3	1.93	0.42
1:O:246:ARG:NH2	1:P:30:LEU:O	2.52	0.42
1:P:168:TRP:CZ2	1:P:286:LYS:HE3	2.53	0.42
1:F:66:THR:HG23	1:F:91:THR:HG23	2.01	0.42
1:J:43:PRO:HG2	1:J:46:ALA:HB2	2.01	0.42
1:J:150:TRP:HB3	1:J:178:LEU:HB3	2.02	0.42
1:K:170:VAL:HG22	3:K:401:HOH:O	2.18	0.42
1:A:93:LEU:HD12	1:A:125:LEU:HD12	2.01	0.42
1:A:240:ALA:HA	1:A:266:LEU:HD13	2.02	0.42
2:A:301:SAH:HB2	1:B:36:VAL:HB	2.01	0.42
1:I:66:THR:HG23	1:I:91:THR:HG23	2.01	0.42
1:M:159:ASP:HB2	1:N:10:GLN:CD	2.40	0.42
1:Q:29:HIS:HA	1:Q:33:GLY:O	2.20	0.42
1:R:215:VAL:HG13	1:R:220:PHE:HB2	2.00	0.42
1:H:166:GLU:OE2	1:H:169:ARG:NH2	2.39	0.42
1:K:143:ASP:OD1	1:K:143:ASP:N	2.50	0.42
1:Q:11:GLN:OE1	1:R:197:GLU:HB2	2.20	0.42
1:R:181:GLU:HG2	1:R:211:PHE:CE1	2.55	0.42
1:E:51:ASP:H	1:E:56:THR:HG21	1.85	0.42
1:G:274:ILE:HG12	1:H:52:MET:HB2	2.01	0.42
1:H:75:PRO:HG2	1:H:99:ARG:HG3	2.01	0.42
1:P:153:GLU:N	3:P:402:HOH:O	2.53	0.42
1:R:171:LEU:HG	3:R:416:HOH:O	2.20	0.42
1:R:192:GLU:OE1	1:R:276:LYS:NZ	2.36	0.42
1:A:36:VAL:HB	2:B:301:SAH:HB2	2.02	0.42
1:C:29:HIS:HA	1:C:33:GLY:O	2.19	0.42
1:C:211:PHE:O	1:C:215:VAL:HG23	2.19	0.42
1:C:271:GLU:OE2	1:C:275:ARG:NE	2.53	0.42
1:I:198:THR:CB	3:I:405:HOH:O	2.68	0.42
1:J:107:ALA:HB1	2:J:301:SAH:O2'	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:189:THR:O	1:C:193:THR:HG23	2.20	0.42
1:G:271:GLU:OE2	1:G:275:ARG:NE	2.52	0.42
1:I:237:ASN:ND2	1:J:54:LEU:HD13	2.34	0.42
1:L:186:GLU:HB3	1:L:187:GLU:H	1.69	0.42
1:G:17:VAL:HG21	1:H:157:HIS:HB3	2.02	0.41
1:I:29:HIS:HA	1:I:33:GLY:O	2.20	0.41
1:I:240:ALA:HA	1:I:266:LEU:HD13	2.02	0.41
1:N:160:ARG:CZ	1:N:206:PRO:HD3	2.50	0.41
1:O:174:GLY:HA3	1:Q:50:GLN:OE1	2.20	0.41
1:D:50:GLN:HE22	1:F:285:ARG:HH12	1.68	0.41
1:F:156:CYS:HA	1:F:160:ARG:NH2	2.35	0.41
1:L:181:GLU:HG3	1:L:182:SER:O	2.20	0.41
1:P:150:TRP:HD1	1:P:150:TRP:O	2.02	0.41
1:R:51:ASP:H	1:R:56:THR:HG21	1.85	0.41
1:G:75:PRO:HG2	1:G:99:ARG:HG3	2.03	0.41
1:P:158:MET:HG2	2:P:301:SAH:N6	2.36	0.41
1:C:160:ARG:CZ	1:C:206:PRO:HD3	2.51	0.41
1:E:273:LEU:HD12	1:E:277:THR:OG1	2.21	0.41
1:F:195:LEU:HD23	1:F:195:LEU:HA	1.94	0.41
1:O:285:ARG:NH2	1:Q:48:VAL:O	2.53	0.41
1:E:241:LEU:HB2	1:F:241:LEU:HD13	2.02	0.41
1:Q:37:HIS:HE1	1:R:62:GLN:O	2.02	0.41
1:A:66:THR:HG23	1:A:91:THR:HG23	2.01	0.41
1:H:42:PHE:CZ	1:H:57:MET:HB3	2.52	0.41
1:J:113:ILE:HD13	1:J:113:ILE:HA	1.76	0.41
1:J:208:LEU:HD22	1:J:208:LEU:HA	1.84	0.41
1:K:109:SER:OG	1:L:22:ASP:OD1	2.26	0.41
2:K:301:SAH:H8	1:L:17:VAL:HG11	2.03	0.41
1:M:139:LEU:H	1:M:166:GLU:HG2	1.86	0.41
1:E:29:HIS:HA	1:E:33:GLY:O	2.21	0.41
1:J:29:HIS:HA	1:J:33:GLY:O	2.21	0.41
1:O:192:GLU:OE1	1:O:276:LYS:NZ	2.41	0.41
1:A:54:LEU:HD13	1:B:237:ASN:ND2	2.36	0.41
1:K:152:ILE:HG23	1:K:180:LEU:CD2	2.51	0.41
1:M:52[B]:MET:HE1	1:N:233:ALA:HB2	2.03	0.41
1:O:240:ALA:HA	1:O:266:LEU:HD13	2.02	0.41
1:R:215:VAL:HA	1:R:218:ALA:CB	2.49	0.41
1:J:85:GLY:O	2:J:301:SAH:N	2.54	0.41
1:G:223:LEU:HD11	1:G:285:ARG:HE	1.86	0.40
1:D:29:HIS:HA	1:D:33:GLY:O	2.22	0.40
1:H:208:LEU:HD22	1:H:208:LEU:HA	1.89	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:40:LEU:HD23	1:F:64:ARG:HG2	2.03	0.40
1:L:197:GLU:HA	1:L:201:ALA:HA	2.02	0.40
1:N:29:HIS:HA	1:N:33:GLY:O	2.21	0.40
1:G:251:THR:HG22	1:G:256:ALA:HA	2.04	0.40
1:H:43:PRO:HG2	1:H:46:ALA:HB2	2.03	0.40
1:H:115:ALA:HA	1:H:118:ARG:HD2	2.03	0.40
1:M:17:VAL:HG21	1:N:157:HIS:HB3	2.03	0.40
1:O:66:THR:HG23	1:O:91:THR:HG23	2.03	0.40
1:R:136:ALA:HB3	1:R:158:MET:SD	2.60	0.40
1:B:138:ARG:HD2	3:B:473:HOH:O	2.21	0.40
1:F:24:PHE:O	1:F:27:VAL:HG12	2.21	0.40
1:H:188:LEU:N	3:H:406:HOH:O	2.46	0.40
1:O:251:THR:HA	1:O:255:GLY:O	2.22	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:126:THR:OG1	1:R:126:THR:OG1[2_555]	2.14	0.06

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	281/297 (95%)	275 (98%)	4 (1%)	2 (1%)	22	39
1	B	279/297 (94%)	275 (99%)	4 (1%)	0	100	100
1	C	278/297 (94%)	269 (97%)	5 (2%)	4 (1%)	11	20
1	D	279/297 (94%)	275 (99%)	3 (1%)	1 (0%)	34	54
1	E	277/297 (93%)	275 (99%)	2 (1%)	0	100	100
1	F	278/297 (94%)	274 (99%)	4 (1%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	G	278/297 (94%)	267 (96%)	9 (3%)	2 (1%)	22	39
1	H	277/297 (93%)	269 (97%)	7 (2%)	1 (0%)	34	54
1	I	279/297 (94%)	275 (99%)	3 (1%)	1 (0%)	34	54
1	J	279/297 (94%)	273 (98%)	6 (2%)	0	100	100
1	K	279/297 (94%)	271 (97%)	7 (2%)	1 (0%)	34	54
1	L	278/297 (94%)	272 (98%)	5 (2%)	1 (0%)	34	54
1	M	281/297 (95%)	273 (97%)	7 (2%)	1 (0%)	34	54
1	N	281/297 (95%)	273 (97%)	6 (2%)	2 (1%)	22	39
1	O	278/297 (94%)	270 (97%)	7 (2%)	1 (0%)	34	54
1	P	278/297 (94%)	271 (98%)	5 (2%)	2 (1%)	22	39
1	Q	281/297 (95%)	274 (98%)	6 (2%)	1 (0%)	34	54
1	R	280/297 (94%)	269 (96%)	9 (3%)	2 (1%)	22	39
All	All	5021/5346 (94%)	4900 (98%)	99 (2%)	22 (0%)	34	54

All (22) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	C	126	THR
1	C	201	ALA
1	K	188	LEU
1	O	188	LEU
1	P	188	LEU
1	Q	188	LEU
1	R	188	LEU
1	A	10	GLN
1	A	188	LEU
1	C	187	GLU
1	C	188	LEU
1	D	188	LEU
1	G	188	LEU
1	H	188	LEU
1	I	188	LEU
1	L	188	LEU
1	M	188	LEU
1	N	10	GLN
1	N	188	LEU
1	G	203	ASN
1	P	253	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	R	189	THR

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	226/239 (95%)	222 (98%)	4 (2%)	59	81
1	B	224/239 (94%)	214 (96%)	10 (4%)	27	51
1	C	223/239 (93%)	216 (97%)	7 (3%)	40	67
1	D	224/239 (94%)	216 (96%)	8 (4%)	35	61
1	E	222/239 (93%)	217 (98%)	5 (2%)	50	76
1	F	223/239 (93%)	219 (98%)	4 (2%)	59	81
1	G	223/239 (93%)	215 (96%)	8 (4%)	35	61
1	H	222/239 (93%)	214 (96%)	8 (4%)	35	61
1	I	224/239 (94%)	217 (97%)	7 (3%)	40	67
1	J	224/239 (94%)	219 (98%)	5 (2%)	52	77
1	K	224/239 (94%)	217 (97%)	7 (3%)	40	67
1	L	223/239 (93%)	216 (97%)	7 (3%)	40	67
1	M	226/239 (95%)	221 (98%)	5 (2%)	52	77
1	N	226/239 (95%)	223 (99%)	3 (1%)	69	87
1	O	223/239 (93%)	214 (96%)	9 (4%)	31	56
1	P	223/239 (93%)	219 (98%)	4 (2%)	59	81
1	Q	226/239 (95%)	222 (98%)	4 (2%)	59	81
1	R	225/239 (94%)	217 (96%)	8 (4%)	35	61
All	All	4031/4302 (94%)	3918 (97%)	113 (3%)	43	70

All (113) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	150	TRP

Continued on next page...

W O R L D W I D E
wwPDB
PROTEIN DATA BANK

Continued from previous page...

Mol	Chain	Res	Type
1	A	186	GLU
1	A	208	LEU
1	A	289	VAL
1	B	45	ASP
1	B	150	TRP
1	B	158	MET
1	B	186	GLU
1	B	188	LEU
1	B	190	GLU
1	B	208	LEU
1	B	247	ARG
1	B	253	ARG
1	B	289	VAL
1	C	26	GLU
1	C	126	THR
1	C	150	TRP
1	C	186	GLU
1	C	200	TYR
1	C	208	LEU
1	C	247	ARG
1	D	10	GLN
1	D	150	TRP
1	D	158	MET
1	D	183	VAL
1	D	186	GLU
1	D	253	ARG
1	D	285[A]	ARG
1	D	285[B]	ARG
1	E	150	TRP
1	E	183	VAL
1	E	247	ARG
1	E	251	THR
1	E	253	ARG
1	F	26	GLU
1	F	150	TRP
1	F	186	GLU
1	F	208	LEU
1	G	36	VAL
1	G	150	TRP
1	G	186	GLU
1	G	208	LEU
1	G	247	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	G	251	THR
1	G	252	GLU
1	G	253	ARG
1	H	26	GLU
1	H	118	ARG
1	H	150	TRP
1	H	186	GLU
1	H	208	LEU
1	H	247	ARG
1	H	251	THR
1	H	253	ARG
1	I	143	ASP
1	I	150	TRP
1	I	186	GLU
1	I	208	LEU
1	I	253	ARG
1	I	285	ARG
1	I	289	VAL
1	J	26	GLU
1	J	150	TRP
1	J	186	GLU
1	J	208	LEU
1	J	253	ARG
1	K	10	GLN
1	K	143	ASP
1	K	150	TRP
1	K	186	GLU
1	K	208	LEU
1	K	252	GLU
1	K	253	ARG
1	L	26	GLU
1	L	51	ASP
1	L	63	ASP
1	L	150	TRP
1	L	186	GLU
1	L	208	LEU
1	L	253	ARG
1	M	36	VAL
1	M	150	TRP
1	M	186	GLU
1	M	253	ARG
1	M	289	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	N	150	TRP
1	N	186	GLU
1	N	253	ARG
1	O	10	GLN
1	O	26	GLU
1	O	36	VAL
1	O	104	THR
1	O	143	ASP
1	O	150	TRP
1	O	186	GLU
1	O	208	LEU
1	O	289	VAL
1	P	15	ASP
1	P	150	TRP
1	P	186	GLU
1	P	247	ARG
1	Q	150	TRP
1	Q	186	GLU
1	Q	253	ARG
1	Q	289	VAL
1	R	126	THR
1	R	150	TRP
1	R	186	GLU
1	R	188	LEU
1	R	190	GLU
1	R	195	LEU
1	R	208	LEU
1	R	289	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1) such sidechains are listed below:

Mol	Chain	Res	Type
1	N	231	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

19 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#|Z| > 2$	Counts	RMSZ	$\#|Z| > 2$
2	SAH	F	301	-	24,28,28	1.24	3 (12%)	25,40,40	1.68	5 (20%)
2	SAH	B	302	-	24,28,28	1.20	3 (12%)	25,40,40	1.70	6 (24%)
2	SAH	L	301	-	24,28,28	1.20	3 (12%)	25,40,40	1.80	5 (20%)
2	SAH	J	301	-	24,28,28	1.20	3 (12%)	25,40,40	1.72	4 (16%)
2	SAH	A	301	-	24,28,28	1.19	3 (12%)	25,40,40	1.71	4 (16%)
2	SAH	E	301	-	24,28,28	1.21	3 (12%)	25,40,40	1.66	4 (16%)
2	SAH	B	301	-	24,28,28	1.18	3 (12%)	25,40,40	1.71	4 (16%)
2	SAH	P	301	-	24,28,28	1.21	3 (12%)	25,40,40	1.69	5 (20%)
2	SAH	O	301	-	24,28,28	1.20	3 (12%)	25,40,40	1.69	4 (16%)
2	SAH	C	301	-	24,28,28	1.18	3 (12%)	25,40,40	1.71	4 (16%)
2	SAH	Q	301	-	24,28,28	1.17	3 (12%)	25,40,40	1.68	4 (16%)
2	SAH	H	301	-	24,28,28	1.24	3 (12%)	25,40,40	1.78	6 (24%)
2	SAH	G	301	-	24,28,28	1.25	3 (12%)	25,40,40	1.64	4 (16%)
2	SAH	D	301	-	24,28,28	1.22	3 (12%)	25,40,40	1.73	4 (16%)
2	SAH	I	301	-	24,28,28	1.17	3 (12%)	25,40,40	1.62	4 (16%)
2	SAH	K	301	-	24,28,28	1.18	3 (12%)	25,40,40	1.75	4 (16%)
2	SAH	M	301	-	24,28,28	1.21	3 (12%)	25,40,40	1.71	4 (16%)
2	SAH	N	301	-	24,28,28	1.21	3 (12%)	25,40,40	1.69	5 (20%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
2	SAH	R	301	-	24,28,28	1.20	3 (12%)	25,40,40	1.71	5 (20%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	SAH	F	301	-	-	2/11/31/31	0/3/3/3
2	SAH	B	302	-	-	6/11/31/31	0/3/3/3
2	SAH	L	301	-	-	3/11/31/31	0/3/3/3
2	SAH	J	301	-	-	2/11/31/31	0/3/3/3
2	SAH	A	301	-	-	2/11/31/31	0/3/3/3
2	SAH	E	301	-	-	2/11/31/31	0/3/3/3
2	SAH	B	301	-	-	2/11/31/31	0/3/3/3
2	SAH	P	301	-	-	3/11/31/31	0/3/3/3
2	SAH	O	301	-	-	4/11/31/31	0/3/3/3
2	SAH	C	301	-	-	1/11/31/31	0/3/3/3
2	SAH	Q	301	-	-	3/11/31/31	0/3/3/3
2	SAH	H	301	-	-	4/11/31/31	0/3/3/3
2	SAH	G	301	-	-	2/11/31/31	0/3/3/3
2	SAH	D	301	-	-	4/11/31/31	0/3/3/3
2	SAH	I	301	-	-	2/11/31/31	0/3/3/3
2	SAH	K	301	-	-	2/11/31/31	0/3/3/3
2	SAH	M	301	-	-	3/11/31/31	0/3/3/3
2	SAH	N	301	-	-	3/11/31/31	0/3/3/3
2	SAH	R	301	-	-	3/11/31/31	0/3/3/3

All (57) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	301	SAH	C2-N3	4.06	1.38	1.32
2	B	302	SAH	C2-N3	4.06	1.38	1.32
2	H	301	SAH	C2-N3	4.03	1.38	1.32
2	D	301	SAH	C2-N3	3.98	1.38	1.32
2	M	301	SAH	C2-N3	3.97	1.38	1.32
2	P	301	SAH	C2-N3	3.96	1.38	1.32
2	J	301	SAH	C2-N3	3.94	1.38	1.32

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	L	301	SAH	C2-N3	3.94	1.38	1.32
2	N	301	SAH	C2-N3	3.92	1.38	1.32
2	R	301	SAH	C2-N3	3.90	1.38	1.32
2	G	301	SAH	C2-N3	3.90	1.38	1.32
2	K	301	SAH	C2-N3	3.86	1.38	1.32
2	O	301	SAH	C2-N3	3.86	1.38	1.32
2	C	301	SAH	C2-N3	3.81	1.38	1.32
2	E	301	SAH	C2-N3	3.79	1.38	1.32
2	A	301	SAH	C2-N3	3.74	1.38	1.32
2	B	301	SAH	C2-N3	3.68	1.38	1.32
2	Q	301	SAH	C2-N3	3.66	1.38	1.32
2	I	301	SAH	C2-N3	3.64	1.38	1.32
2	G	301	SAH	OXT-C	-2.64	1.21	1.30
2	A	301	SAH	C2-N1	2.55	1.38	1.33
2	H	301	SAH	C2-N1	2.54	1.38	1.33
2	R	301	SAH	C2-N1	2.51	1.38	1.33
2	E	301	SAH	C2-N1	2.51	1.38	1.33
2	L	301	SAH	C2-N1	2.51	1.38	1.33
2	D	301	SAH	C2-N1	2.51	1.38	1.33
2	B	302	SAH	C2-N1	2.50	1.38	1.33
2	N	301	SAH	C2-N1	2.49	1.38	1.33
2	G	301	SAH	C2-N1	2.48	1.38	1.33
2	B	301	SAH	C2-N1	2.47	1.38	1.33
2	K	301	SAH	C2-N1	2.45	1.38	1.33
2	I	301	SAH	C2-N1	2.44	1.38	1.33
2	P	301	SAH	C2-N1	2.43	1.38	1.33
2	O	301	SAH	C2-N1	2.41	1.38	1.33
2	M	301	SAH	C2-N1	2.40	1.38	1.33
2	F	301	SAH	C2-N1	2.39	1.38	1.33
2	J	301	SAH	C2-N1	2.39	1.38	1.33
2	C	301	SAH	C2-N1	2.37	1.38	1.33
2	Q	301	SAH	C2-N1	2.33	1.38	1.33
2	M	301	SAH	OXT-C	-2.32	1.22	1.30
2	O	301	SAH	OXT-C	-2.25	1.23	1.30
2	N	301	SAH	OXT-C	-2.25	1.23	1.30
2	H	301	SAH	OXT-C	-2.21	1.23	1.30
2	A	301	SAH	OXT-C	-2.19	1.23	1.30
2	I	301	SAH	OXT-C	-2.18	1.23	1.30
2	E	301	SAH	OXT-C	-2.18	1.23	1.30
2	R	301	SAH	OXT-C	-2.15	1.23	1.30
2	B	302	SAH	OXT-C	-2.14	1.23	1.30
2	D	301	SAH	OXT-C	-2.14	1.23	1.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	K	301	SAH	OXT-C	-2.13	1.23	1.30
2	Q	301	SAH	OXT-C	-2.12	1.23	1.30
2	P	301	SAH	OXT-C	-2.11	1.23	1.30
2	F	301	SAH	OXT-C	-2.10	1.23	1.30
2	C	301	SAH	OXT-C	-2.09	1.23	1.30
2	B	301	SAH	OXT-C	-2.09	1.23	1.30
2	J	301	SAH	OXT-C	-2.09	1.23	1.30
2	L	301	SAH	OXT-C	-2.03	1.23	1.30

All (85) bond angle outliers are listed below:

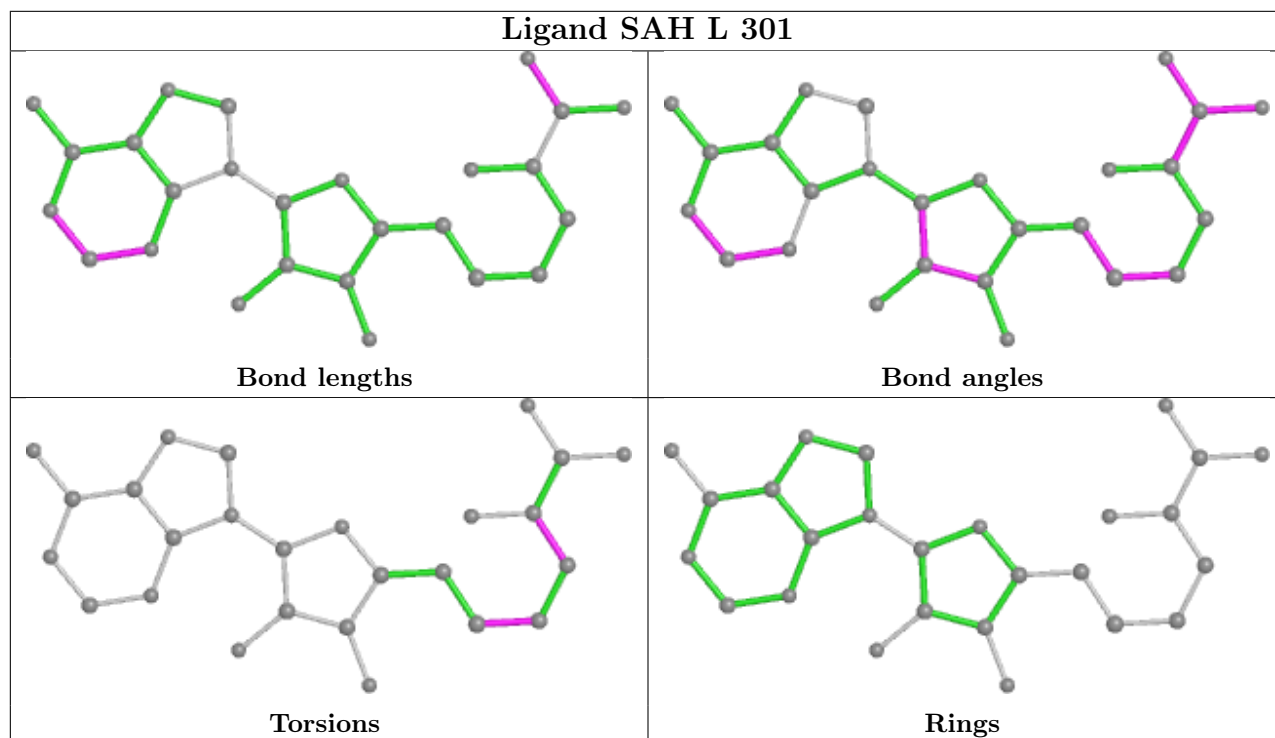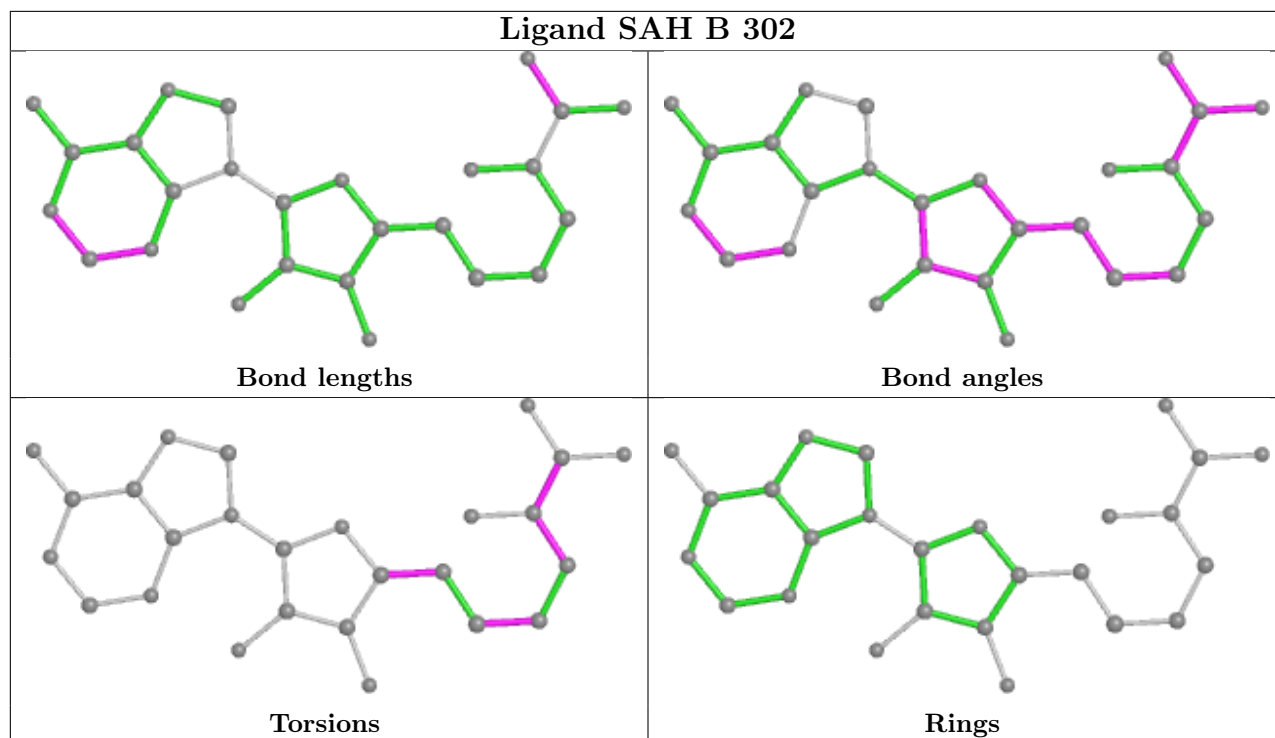| Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	301	SAH	N3-C2-N1	-5.79	119.62	128.68
2	I	301	SAH	N3-C2-N1	-5.71	119.76	128.68
2	B	301	SAH	N3-C2-N1	-5.70	119.77	128.68
2	A	301	SAH	N3-C2-N1	-5.67	119.82	128.68
2	K	301	SAH	N3-C2-N1	-5.62	119.90	128.68
2	N	301	SAH	N3-C2-N1	-5.60	119.93	128.68
2	E	301	SAH	N3-C2-N1	-5.59	119.94	128.68
2	R	301	SAH	N3-C2-N1	-5.59	119.94	128.68
2	Q	301	SAH	N3-C2-N1	-5.53	120.03	128.68
2	J	301	SAH	N3-C2-N1	-5.53	120.03	128.68
2	H	301	SAH	N3-C2-N1	-5.47	120.13	128.68
2	M	301	SAH	N3-C2-N1	-5.46	120.15	128.68
2	D	301	SAH	N3-C2-N1	-5.46	120.15	128.68
2	G	301	SAH	N3-C2-N1	-5.42	120.21	128.68
2	O	301	SAH	N3-C2-N1	-5.35	120.31	128.68
2	F	301	SAH	N3-C2-N1	-5.31	120.38	128.68
2	L	301	SAH	N3-C2-N1	-5.29	120.41	128.68
2	B	302	SAH	N3-C2-N1	-5.28	120.43	128.68
2	P	301	SAH	N3-C2-N1	-5.21	120.54	128.68
2	L	301	SAH	C5'-SD-CG	-4.34	89.25	102.27
2	B	301	SAH	C5'-SD-CG	-4.21	89.65	102.27
2	H	301	SAH	C5'-SD-CG	-4.19	89.69	102.27
2	K	301	SAH	C5'-SD-CG	-4.13	89.88	102.27
2	D	301	SAH	C5'-SD-CG	-4.07	90.05	102.27
2	O	301	SAH	C5'-SD-CG	-4.00	90.28	102.27
2	C	301	SAH	C5'-SD-CG	-3.97	90.34	102.27
2	J	301	SAH	C5'-SD-CG	-3.95	90.42	102.27
2	R	301	SAH	C5'-SD-CG	-3.88	90.61	102.27
2	F	301	SAH	C5'-SD-CG	-3.88	90.62	102.27
2	G	301	SAH	C5'-SD-CG	-3.83	90.77	102.27

Continued on next page...

Continued from previous page...

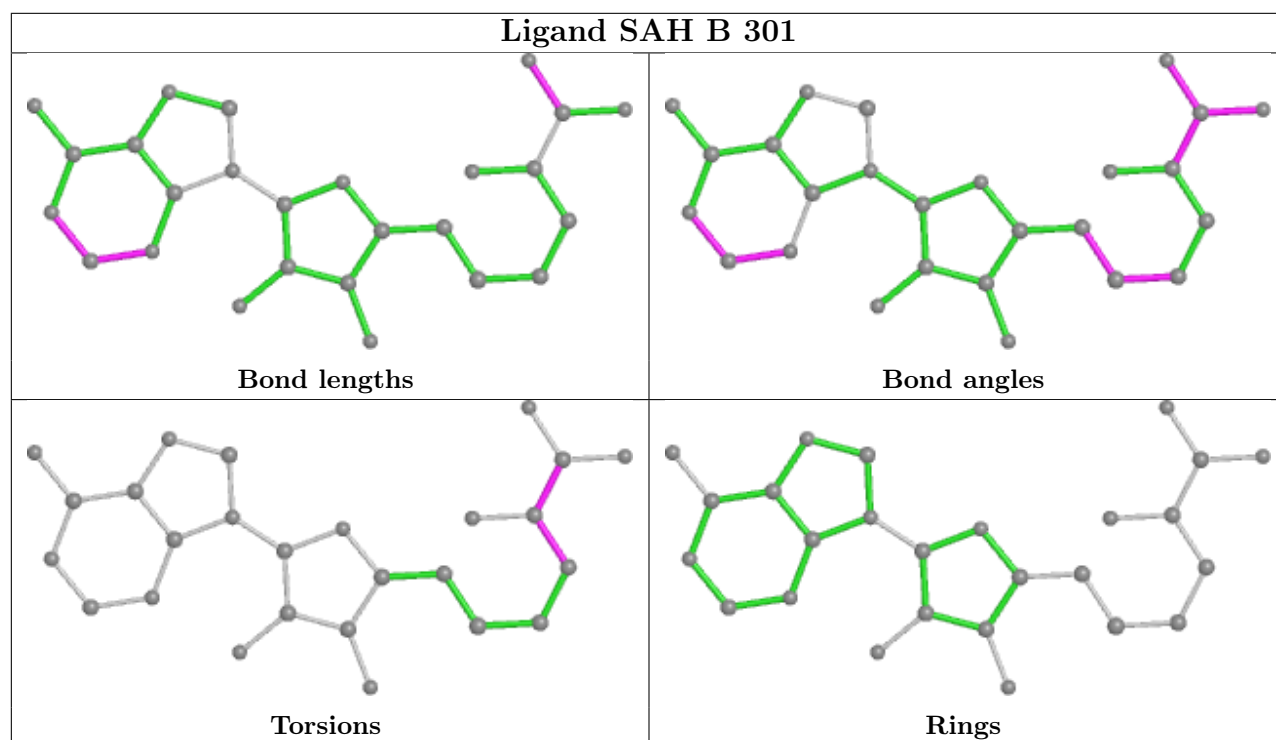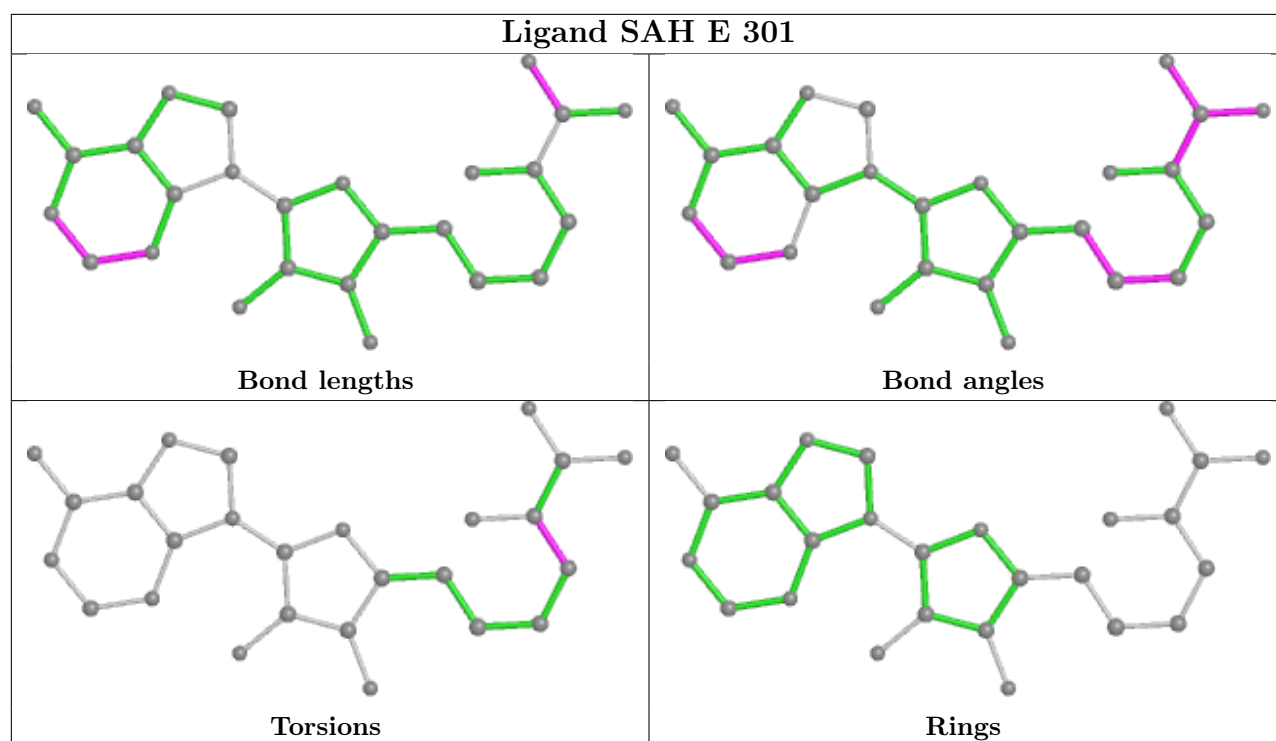| Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	Q	301	SAH	C5'-SD-CG	-3.73	91.08	102.27
2	M	301	SAH	C5'-SD-CG	-3.69	91.18	102.27
2	N	301	SAH	C5'-SD-CG	-3.69	91.20	102.27
2	A	301	SAH	C5'-SD-CG	-3.55	91.61	102.27
2	P	301	SAH	C5'-SD-CG	-3.48	91.82	102.27
2	B	302	SAH	C5'-SD-CG	-3.38	92.11	102.27
2	E	301	SAH	C5'-SD-CG	-3.32	92.32	102.27
2	A	301	SAH	OXT-C-O	-3.14	116.96	124.09
2	M	301	SAH	OXT-C-O	-3.08	117.11	124.09
2	P	301	SAH	C3'-C2'-C1'	2.95	105.41	100.98
2	I	301	SAH	C5'-SD-CG	-2.89	93.60	102.27
2	L	301	SAH	C3'-C2'-C1'	2.87	105.30	100.98
2	B	302	SAH	OXT-C-O	-2.82	117.69	124.09
2	K	301	SAH	OXT-C-O	-2.82	117.69	124.09
2	E	301	SAH	OXT-C-O	-2.81	117.70	124.09
2	L	301	SAH	OXT-C-O	-2.73	117.89	124.09
2	H	301	SAH	OXT-C-O	-2.72	117.91	124.09
2	O	301	SAH	OXT-C-O	-2.70	117.95	124.09
2	D	301	SAH	OXT-C-O	-2.69	117.97	124.09
2	G	301	SAH	OXT-C-O	-2.63	118.12	124.09
2	I	301	SAH	OXT-C-O	-2.60	118.19	124.09
2	P	301	SAH	OXT-C-O	-2.60	118.19	124.09
2	N	301	SAH	OXT-C-O	-2.59	118.21	124.09
2	J	301	SAH	OXT-C-O	-2.51	118.38	124.09
2	F	301	SAH	C4-C5-N7	-2.49	106.80	109.40
2	Q	301	SAH	OXT-C-O	-2.45	118.53	124.09
2	C	301	SAH	OXT-C-O	-2.43	118.58	124.09
2	R	301	SAH	OXT-C-O	-2.42	118.59	124.09
2	J	301	SAH	OXT-C-CA	2.36	121.44	113.38
2	A	301	SAH	OXT-C-CA	2.33	121.31	113.38
2	B	302	SAH	OXT-C-CA	2.31	121.25	113.38
2	E	301	SAH	OXT-C-CA	2.30	121.20	113.38
2	H	301	SAH	C5'-C4'-C3'	-2.29	109.34	115.06
2	H	301	SAH	OXT-C-CA	2.28	121.16	113.38
2	K	301	SAH	OXT-C-CA	2.28	121.15	113.38
2	M	301	SAH	OXT-C-CA	2.28	121.15	113.38
2	L	301	SAH	OXT-C-CA	2.26	121.08	113.38
2	P	301	SAH	OXT-C-CA	2.25	121.06	113.38
2	B	302	SAH	C3'-C2'-C1'	2.25	104.36	100.98
2	R	301	SAH	C3'-C2'-C1'	2.25	104.36	100.98
2	I	301	SAH	OXT-C-CA	2.22	120.94	113.38
2	N	301	SAH	C3'-C2'-C1'	2.22	104.32	100.98

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	301	SAH	OXT-C-O	-2.22	119.05	124.09
2	B	302	SAH	O4'-C4'-C5'	2.18	114.44	108.83
2	Q	301	SAH	OXT-C-CA	2.14	120.68	113.38
2	G	301	SAH	C3'-C2'-C1'	2.13	104.18	100.98
2	R	301	SAH	OXT-C-CA	2.12	120.62	113.38
2	D	301	SAH	OXT-C-CA	2.11	120.57	113.38
2	O	301	SAH	OXT-C-CA	2.11	120.56	113.38
2	N	301	SAH	OXT-C-CA	2.08	120.45	113.38
2	F	301	SAH	OXT-C-O	-2.06	119.41	124.09
2	C	301	SAH	OXT-C-CA	2.02	120.26	113.38
2	F	301	SAH	OXT-C-CA	2.02	120.26	113.38
2	B	301	SAH	OXT-C-CA	2.02	120.25	113.38
2	H	301	SAH	C3'-C2'-C1'	2.01	104.01	100.98

There are no chirality outliers.

All (53) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	B	302	SAH	N-CA-CB-CG
2	E	301	SAH	C-CA-CB-CG
2	I	301	SAH	C-CA-CB-CG
2	O	301	SAH	C-CA-CB-CG
2	P	301	SAH	N-CA-CB-CG
2	P	301	SAH	C-CA-CB-CG
2	Q	301	SAH	C-CA-CB-CG
2	R	301	SAH	N-CA-CB-CG
2	R	301	SAH	C-CA-CB-CG
2	B	302	SAH	OXT-C-CA-CB
2	A	301	SAH	C-CA-CB-CG
2	B	302	SAH	C-CA-CB-CG
2	D	301	SAH	C-CA-CB-CG
2	F	301	SAH	C-CA-CB-CG
2	G	301	SAH	C-CA-CB-CG
2	H	301	SAH	C-CA-CB-CG
2	K	301	SAH	C-CA-CB-CG
2	L	301	SAH	C-CA-CB-CG
2	M	301	SAH	C-CA-CB-CG
2	B	302	SAH	O-C-CA-CB
2	E	301	SAH	N-CA-CB-CG
2	I	301	SAH	N-CA-CB-CG
2	O	301	SAH	N-CA-CB-CG
2	Q	301	SAH	N-CA-CB-CG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
2	B	301	SAH	C-CA-CB-CG
2	C	301	SAH	C-CA-CB-CG
2	J	301	SAH	C-CA-CB-CG
2	N	301	SAH	C-CA-CB-CG
2	H	301	SAH	CB-CG-SD-C5'
2	P	301	SAH	CB-CG-SD-C5'
2	B	302	SAH	O4'-C4'-C5'-SD
2	M	301	SAH	CB-CG-SD-C5'
2	L	301	SAH	CB-CG-SD-C5'
2	B	301	SAH	O-C-CA-N
2	D	301	SAH	O-C-CA-N
2	H	301	SAH	O-C-CA-N
2	O	301	SAH	O-C-CA-N
2	D	301	SAH	CB-CG-SD-C5'
2	N	301	SAH	CB-CG-SD-C5'
2	R	301	SAH	CB-CG-SD-C5'
2	A	301	SAH	N-CA-CB-CG
2	D	301	SAH	N-CA-CB-CG
2	F	301	SAH	N-CA-CB-CG
2	G	301	SAH	N-CA-CB-CG
2	H	301	SAH	N-CA-CB-CG
2	J	301	SAH	N-CA-CB-CG
2	K	301	SAH	N-CA-CB-CG
2	L	301	SAH	N-CA-CB-CG
2	M	301	SAH	N-CA-CB-CG
2	N	301	SAH	N-CA-CB-CG
2	O	301	SAH	CB-CG-SD-C5'
2	Q	301	SAH	CB-CG-SD-C5'
2	B	302	SAH	CB-CG-SD-C5'

There are no ring outliers.

17 monomers are involved in 33 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	F	301	SAH	1	0
2	B	302	SAH	1	0
2	L	301	SAH	3	0
2	J	301	SAH	3	0
2	A	301	SAH	1	0
2	E	301	SAH	1	0
2	B	301	SAH	3	0
2	P	301	SAH	3	0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	O	301	SAH	2	0
2	C	301	SAH	1	0
2	H	301	SAH	1	0
2	G	301	SAH	1	0
2	D	301	SAH	3	0
2	K	301	SAH	3	0
2	M	301	SAH	1	0
2	N	301	SAH	4	0
2	R	301	SAH	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand SAH F 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH B 302

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH L 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH J 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH A 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH E 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH B 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH P 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH O 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH C 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH Q 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH H 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH G 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH D 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH I 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH K 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH M 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH N 301

Bond lengths

Bond angles

Torsions

Rings

Ligand SAH R 301

Bond lengths

Bond angles

Torsions

Rings

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å²)	Q<0.9
1	A	281/297 (94%)	0.16	1 (0%)	92	93	29, 46, 71, 105	0
1	B	280/297 (94%)	0.15	0	100	100	32, 49, 77, 95	0
1	C	280/297 (94%)	0.32	4 (1%)	75	77	38, 61, 87, 101	0
1	D	280/297 (94%)	0.19	3 (1%)	80	82	40, 60, 86, 101	0
1	E	279/297 (93%)	0.19	3 (1%)	80	82	30, 56, 77, 94	0
1	F	280/297 (94%)	0.19	2 (0%)	87	89	28, 49, 75, 102	0
1	G	280/297 (94%)	0.77	26 (9%)	8	8	53, 85, 122, 138	0
1	H	279/297 (93%)	1.05	47 (16%)	1	1	64, 99, 123, 137	0
1	I	280/297 (94%)	0.18	5 (1%)	68	71	25, 47, 96, 132	1 (0%)
1	J	281/297 (94%)	0.54	17 (6%)	21	22	35, 85, 113, 133	0
1	K	281/297 (94%)	0.54	13 (4%)	32	34	46, 76, 117, 127	0
1	L	280/297 (94%)	0.70	24 (8%)	10	10	51, 88, 120, 147	0
1	M	281/297 (94%)	0.58	24 (8%)	10	10	40, 63, 141, 169	0
1	N	281/297 (94%)	1.42	76 (27%)	0	0	50, 107, 137, 152	0
1	O	280/297 (94%)	0.46	13 (4%)	32	34	36, 70, 100, 124	0
1	P	280/297 (94%)	0.48	17 (6%)	21	22	42, 78, 105, 116	0
1	Q	281/297 (94%)	1.11	53 (18%)	1	1	36, 77, 159, 191	0
1	R	281/297 (94%)	2.11	119 (42%)	0	0	73, 115, 149, 173	0
All	All	5045/5346 (94%)	0.62	447 (8%)	9	9	25, 70, 124, 191	1 (0%)

All (447) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	Q	11	GLN	19.2
1	M	9	GLN	11.9
1	R	250	PHE	8.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	M	17	VAL	8.5
1	R	243	VAL	8.3
1	Q	25	GLY	8.2
1	M	21	TYR	8.1
1	Q	20	TRP	8.0
1	R	179	VAL	7.6
1	R	239	PHE	7.5
1	K	21	TYR	7.5
1	Q	27	VAL	7.5
1	R	82	LEU	7.4
1	Q	9	GLN	7.4
1	N	134	ALA	7.4
1	M	15	ASP	7.3
1	R	55	VAL	7.2
1	M	25	GLY	6.8
1	Q	15	ASP	6.7
1	M	10	GLN	6.7
1	N	211	PHE	6.4
1	R	260	ASP	6.3
1	R	204	VAL	6.3
1	R	104	THR	6.3
1	R	106	VAL	6.2
1	R	164	LEU	6.1
1	R	160	ARG	6.0
1	K	17	VAL	5.9
1	R	208	LEU	5.9
1	Q	12	VAL	5.8
1	R	125	LEU	5.8
1	R	149	ALA	5.8
1	Q	17	VAL	5.7
1	R	207	ARG	5.7
1	N	131	PHE	5.7
1	R	200	TYR	5.6
1	Q	30	LEU	5.5
1	R	148	CYS	5.5
1	R	196	PHE	5.4
1	Q	253	ARG	5.4
1	M	19	ASP	5.3
1	H	131	PHE	5.3
1	R	181	GLU	5.3
1	N	175	GLY	5.2
1	G	196	PHE	5.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	R	108	VAL	5.1
1	N	146	PHE	5.1
1	G	21	TYR	5.0
1	R	66	THR	5.0
1	N	121	ALA	5.0
1	Q	37	HIS	4.9
1	N	104	THR	4.9
1	L	252	GLU	4.8
1	N	200	TYR	4.8
1	R	258	PHE	4.8
1	O	289	VAL	4.8
1	R	205	PRO	4.7
1	Q	21	TYR	4.7
1	H	133	VAL	4.7
1	N	112	GLN	4.7
1	Q	32	LEU	4.6
1	Q	254	PHE	4.6
1	M	28	TYR	4.5
1	R	73	LEU	4.5
1	L	250	PHE	4.4
1	R	272	THR	4.3
1	R	84	ILE	4.3
1	R	212	PHE	4.3
1	N	150	TRP	4.2
1	R	266	LEU	4.2
1	R	49	PRO	4.2
1	N	199	LEU	4.2
1	Q	29	HIS	4.2
1	R	95	ALA	4.2
1	R	42	PHE	4.2
1	Q	36	VAL	4.2
1	N	125	LEU	4.2
1	N	101	ILE	4.1
1	J	138	ARG	4.1
1	H	250	PHE	4.1
1	R	171	LEU	4.1
1	M	11	GLN	4.1
1	R	155	LEU	4.0
1	N	250	PHE	4.0
1	Q	24	PHE	4.0
1	R	153	GLU	4.0
1	Q	270[A]	GLN	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	Q	188	LEU	4.0
1	R	129	LEU	3.9
1	R	139	LEU	3.9
1	L	88	THR	3.9
1	J	105	GLY	3.9
1	R	247	ARG	3.9
1	L	131	PHE	3.9
1	M	20	TRP	3.9
1	N	190	GLU	3.9
1	O	218	ALA	3.8
1	Q	28	TYR	3.8
1	N	239	PHE	3.8
1	Q	19	ASP	3.8
1	R	241	LEU	3.8
1	H	196	PHE	3.8
1	R	75	PRO	3.8
1	H	110	LYS	3.8
1	N	289	VAL	3.8
1	P	139	LEU	3.8
1	R	236	MET	3.7
1	R	138	ARG	3.7
1	R	246	ARG	3.7
1	N	204	VAL	3.7
1	Q	13	THR	3.7
1	Q	52[A]	MET	3.7
1	G	20	TRP	3.7
1	Q	10	GLN	3.7
1	G	199	LEU	3.7
1	N	259	VAL	3.7
1	N	212	PHE	3.6
1	R	151	ALA	3.6
1	H	197	GLU	3.6
1	N	140	PRO	3.6
1	G	17	VAL	3.6
1	N	270[A]	GLN	3.6
1	Q	258	PHE	3.6
1	N	139	LEU	3.6
1	R	70	ILE	3.5
1	R	177	LEU	3.5
1	H	105	GLY	3.5
1	G	262	LEU	3.5
1	R	128	ARG	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	R	147	ASP	3.5
1	Q	186	GLU	3.5
1	O	211	PHE	3.5
1	N	164	LEU	3.5
1	Q	266	LEU	3.5
1	R	232	LEU	3.5
1	R	186	GLU	3.5
1	Q	275	ARG	3.5
1	R	146	PHE	3.5
1	H	119	LEU	3.5
1	E	289	VAL	3.5
1	Q	31	THR	3.4
1	R	261	GLY	3.4
1	E	138	ARG	3.4
1	J	188	LEU	3.4
1	H	25	GLY	3.4
1	L	188	LEU	3.4
1	Q	33	GLY	3.4
1	N	220	PHE	3.4
1	G	244	TYR	3.4
1	R	116	ALA	3.4
1	I	10	GLN	3.3
1	Q	212	PHE	3.3
1	H	265	GLY	3.3
1	N	129	LEU	3.3
1	N	254	PHE	3.3
1	H	126	THR	3.3
1	R	161	ALA	3.3
1	N	196	PHE	3.3
1	R	141	TYR	3.3
1	N	195	LEU	3.3
1	Q	199	LEU	3.3
1	R	168	TRP	3.3
1	R	262	LEU	3.2
1	Q	211	PHE	3.2
1	G	266	LEU	3.2
1	I	15	ASP	3.2
1	J	129	LEU	3.2
1	Q	23	LYS	3.2
1	N	149	ALA	3.2
1	R	130	THR	3.2
1	H	106	VAL	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	R	85	GLY	3.2
1	M	289	VAL	3.2
1	R	69	LEU	3.2
1	Q	243	VAL	3.2
1	R	275	ARG	3.2
1	N	279	PHE	3.1
1	R	240	ALA	3.1
1	R	57	MET	3.1
1	N	86	CYS	3.1
1	K	212	PHE	3.1
1	R	101	ILE	3.1
1	R	157	HIS	3.1
1	K	26	GLU	3.1
1	G	195	LEU	3.1
1	N	171	LEU	3.1
1	R	256	ALA	3.1
1	H	103	VAL	3.1
1	G	36	VAL	3.1
1	G	188	LEU	3.0
1	N	252	GLU	3.0
1	O	161	ALA	3.0
1	Q	14	ALA	3.0
1	R	54	LEU	3.0
1	J	187	GLU	3.0
1	N	106	VAL	3.0
1	N	184	VAL	3.0
1	R	270[A]	GLN	3.0
1	N	274	ILE	3.0
1	O	137	MET	3.0
1	C	290	LEU	3.0
1	N	119	LEU	3.0
1	R	274	ILE	3.0
1	R	102	ALA	3.0
1	J	212	PHE	3.0
1	A	9	GLN	3.0
1	J	164	LEU	3.0
1	N	192	GLU	3.0
1	Q	242	GLY	3.0
1	Q	262	LEU	2.9
1	R	96	ALA	2.9
1	Q	200	TYR	2.9
1	R	81	LEU	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	M	12	VAL	2.9
1	Q	57	MET	2.9
1	N	182	SER	2.9
1	O	138	ARG	2.9
1	H	121	ALA	2.9
1	H	30	LEU	2.9
1	N	141	TYR	2.9
1	R	110	LYS	2.9
1	H	132	GLU	2.9
1	L	244	TYR	2.9
1	O	21	TYR	2.9
1	D	289	VAL	2.8
1	H	247	ARG	2.8
1	R	50	GLN	2.8
1	R	126	THR	2.8
1	R	136	ALA	2.8
1	R	225	LEU	2.8
1	N	137	MET	2.8
1	H	101	ILE	2.8
1	K	12	VAL	2.8
1	P	196	PHE	2.8
1	Q	196	PHE	2.8
1	R	279	PHE	2.8
1	G	242	GLY	2.8
1	N	179	VAL	2.8
1	N	103	VAL	2.8
1	H	200	TYR	2.8
1	H	262	LEU	2.8
1	N	135	ASP	2.8
1	G	243	VAL	2.7
1	N	174	GLY	2.7
1	O	165	GLY	2.7
1	G	253	ARG	2.7
1	L	108	VAL	2.7
1	H	134	ALA	2.7
1	N	223	LEU	2.7
1	M	36	VAL	2.7
1	H	240	ALA	2.7
1	N	198	THR	2.7
1	M	266	LEU	2.7
1	N	82	LEU	2.7
1	K	25	GLY	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	R	156	CYS	2.7
1	M	30	LEU	2.7
1	H	236	MET	2.7
1	G	260	ASP	2.7
1	Q	239	PHE	2.7
1	R	131	PHE	2.7
1	R	284	LEU	2.7
1	R	244	TYR	2.7
1	G	212	PHE	2.6
1	P	212	PHE	2.6
1	K	138	ARG	2.6
1	N	138	ARG	2.6
1	H	32	LEU	2.6
1	L	125	LEU	2.6
1	P	119	LEU	2.6
1	Q	241	LEU	2.6
1	K	190	GLU	2.6
1	M	275	ARG	2.6
1	R	150	TRP	2.6
1	Q	42	PHE	2.6
1	M	38	CYS	2.6
1	R	123	HIS	2.6
1	I	25	GLY	2.6
1	H	194	ALA	2.6
1	G	28	TYR	2.6
1	H	151	ALA	2.6
1	P	106	VAL	2.6
1	P	204	VAL	2.6
1	Q	277	THR	2.6
1	N	247	ARG	2.6
1	N	14	ALA	2.5
1	P	250	PHE	2.5
1	R	210	GLU	2.5
1	C	200	TYR	2.5
1	I	21	TYR	2.5
1	M	138	ARG	2.5
1	R	97	ARG	2.5
1	N	142	GLU	2.5
1	O	212	PHE	2.5
1	N	81	LEU	2.5
1	G	202	ALA	2.5
1	R	107	ALA	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	L	273	LEU	2.5
1	R	184	VAL	2.5
1	G	191	PRO	2.5
1	N	244	TYR	2.5
1	N	263	LEU	2.5
1	R	190	GLU	2.5
1	G	13	THR	2.5
1	L	107	ALA	2.5
1	J	199	LEU	2.5
1	P	103	VAL	2.4
1	H	20	TRP	2.4
1	Q	22	ASP	2.4
1	H	195	LEU	2.4
1	Q	263	LEU	2.4
1	N	136	ALA	2.4
1	R	120	ALA	2.4
1	Q	40	LEU	2.4
1	R	178	LEU	2.4
1	R	289	VAL	2.4
1	R	112	GLN	2.4
1	R	137	MET	2.4
1	N	107	ALA	2.4
1	P	116	ALA	2.4
1	R	154	SER	2.4
1	J	110	LYS	2.4
1	M	23	LYS	2.4
1	K	23	LYS	2.4
1	N	110	LYS	2.4
1	R	162	LYS	2.4
1	P	155	LEU	2.4
1	H	100	GLY	2.4
1	R	221	HIS	2.4
1	R	198	THR	2.4
1	N	284	LEU	2.4
1	P	81	LEU	2.4
1	J	108	VAL	2.4
1	R	80	HIS	2.4
1	K	19	ASP	2.4
1	N	88	THR	2.4
1	N	156	CYS	2.4
1	R	52	MET	2.3
1	N	170	VAL	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	R	159	ASP	2.3
1	N	161	ALA	2.3
1	J	179	VAL	2.3
1	R	183	VAL	2.3
1	H	254	PHE	2.3
1	H	258	PHE	2.3
1	R	280	PHE	2.3
1	L	134	ALA	2.3
1	R	65	TYR	2.3
1	N	132	GLU	2.3
1	H	14	ALA	2.3
1	R	216	SER	2.3
1	N	75	PRO	2.3
1	F	138	ARG	2.3
1	R	265	GLY	2.3
1	G	240	ALA	2.3
1	R	62	GLN	2.3
1	R	127	GLU	2.3
1	R	187	GLU	2.3
1	P	289	VAL	2.3
1	Q	289	VAL	2.3
1	N	145	SER	2.3
1	O	202	ALA	2.3
1	H	261	GLY	2.2
1	L	133	VAL	2.2
1	J	239	PHE	2.2
1	L	146	PHE	2.2
1	H	188	LEU	2.2
1	L	118	ARG	2.2
1	D	17	VAL	2.2
1	M	243	VAL	2.2
1	G	142	GLU	2.2
1	P	131	PHE	2.2
1	L	129	LEU	2.2
1	R	68	TYR	2.2
1	L	255	GLY	2.2
1	N	51	ASP	2.2
1	L	179	VAL	2.2
1	N	133	VAL	2.2
1	G	256	ALA	2.2
1	H	255	GLY	2.2
1	L	87	GLY	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	O	207	ARG	2.2
1	R	133	VAL	2.2
1	I	14	ALA	2.2
1	H	239	PHE	2.2
1	J	131	PHE	2.2
1	L	112	GLN	2.2
1	R	30	LEU	2.2
1	E	106	VAL	2.2
1	H	130	THR	2.2
1	K	24	PHE	2.2
1	C	139	LEU	2.2
1	N	127	GLU	2.2
1	H	123	HIS	2.2
1	Q	41	TRP	2.2
1	R	11	GLN	2.2
1	L	128	ARG	2.2
1	M	24	PHE	2.2
1	Q	54	LEU	2.2
1	R	9	GLN	2.1
1	N	168	TRP	2.1
1	M	13	THR	2.1
1	N	181	GLU	2.1
1	G	273	LEU	2.1
1	L	82	LEU	2.1
1	L	262	LEU	2.1
1	O	164	LEU	2.1
1	N	154	SER	2.1
1	M	253	ARG	2.1
1	H	104	THR	2.1
1	H	93	LEU	2.1
1	D	118	ARG	2.1
1	N	197	GLU	2.1
1	J	139	LEU	2.1
1	F	289	VAL	2.1
1	H	107	ALA	2.1
1	P	12	VAL	2.1
1	K	273	LEU	2.1
1	L	239	PHE	2.1
1	O	163	ALA	2.1
1	M	26	GLU	2.1
1	H	199	LEU	2.1
1	P	174	GLY	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	G	192	GLU	2.1
1	N	118	ARG	2.1
1	P	141	TYR	2.1
1	R	51	ASP	2.1
1	H	266	LEU	2.1
1	L	266	LEU	2.1
1	Q	208	LEU	2.1
1	H	137	MET	2.0
1	R	86	CYS	2.0
1	J	201	ALA	2.0
1	P	140	PRO	2.0
1	C	289	VAL	2.0
1	K	110	LYS	2.0
1	R	94	LYS	2.0
1	N	30	LEU	2.0
1	Q	278	ARG	2.0
1	R	199	LEU	2.0
1	G	211	PHE	2.0
1	H	150	TRP	2.0
1	H	112	GLN	2.0
1	R	282	ALA	2.0
1	J	104	THR	2.0
1	J	196	PHE	2.0
1	H	158	MET	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates ⓘ

There are no monosaccharides in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	SAH	R	301	26/26	0.54	0.42	118,121,122,123	0
2	SAH	N	301	26/26	0.69	0.29	105,107,108,108	0
2	SAH	B	302	26/26	0.71	0.25	105,107,108,108	0
2	SAH	H	301	26/26	0.78	0.29	98,102,105,106	0
2	SAH	J	301	26/26	0.86	0.22	88,89,91,91	0
2	SAH	P	301	26/26	0.88	0.22	72,74,75,75	0
2	SAH	K	301	26/26	0.88	0.20	75,79,80,81	0
2	SAH	L	301	26/26	0.91	0.26	85,87,89,89	0
2	SAH	O	301	26/26	0.91	0.21	80,82,83,83	0
2	SAH	G	301	26/26	0.93	0.19	74,75,77,77	0
2	SAH	C	301	26/26	0.94	0.19	61,63,64,64	0
2	SAH	Q	301	26/26	0.94	0.18	61,62,64,65	0
2	SAH	B	301	26/26	0.94	0.20	49,51,52,53	0
2	SAH	D	301	26/26	0.95	0.15	57,58,59,59	0
2	SAH	M	301	26/26	0.96	0.18	57,61,62,62	0
2	SAH	E	301	26/26	0.97	0.18	48,49,50,50	0
2	SAH	A	301	26/26	0.98	0.15	36,38,39,39	0
2	SAH	F	301	26/26	0.98	0.17	34,35,36,37	0
2	SAH	I	301	26/26	0.98	0.15	34,36,37,38	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.
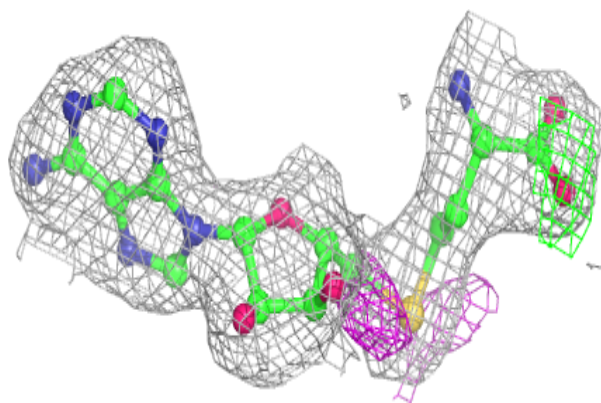
Electron density around SAH R 301:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
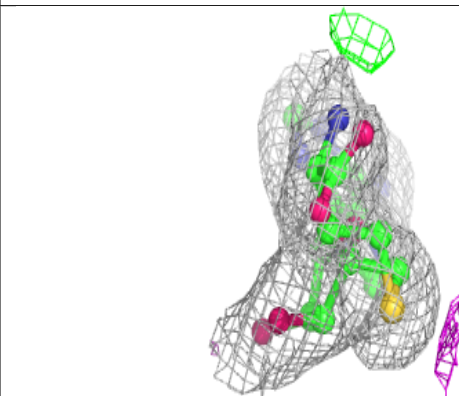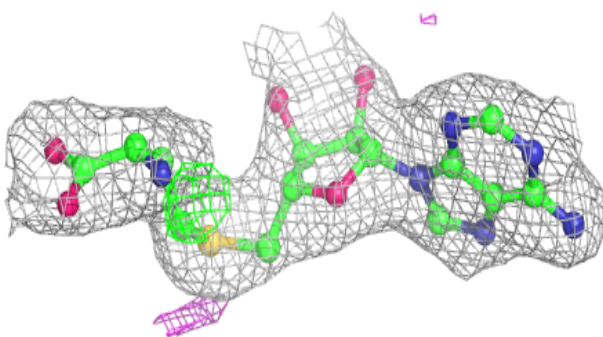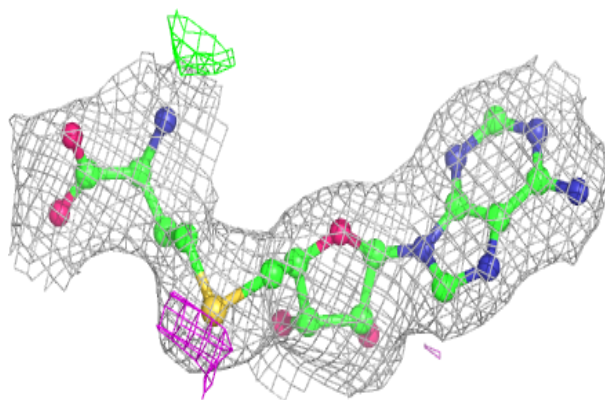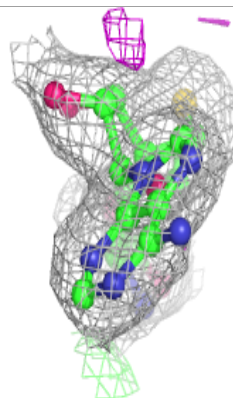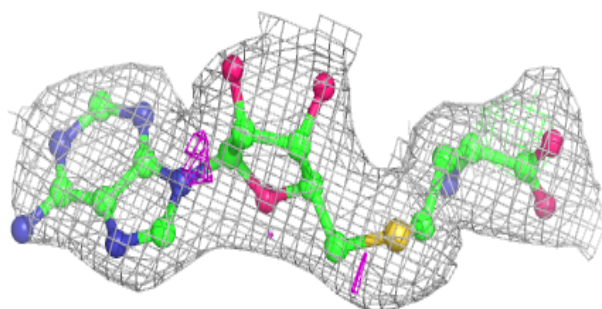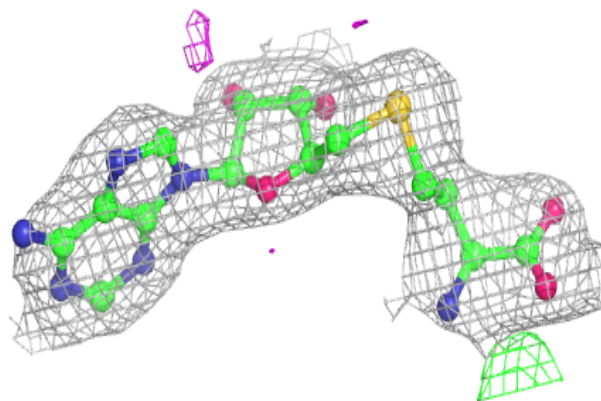$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
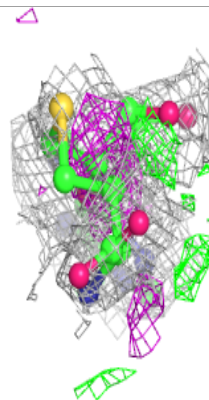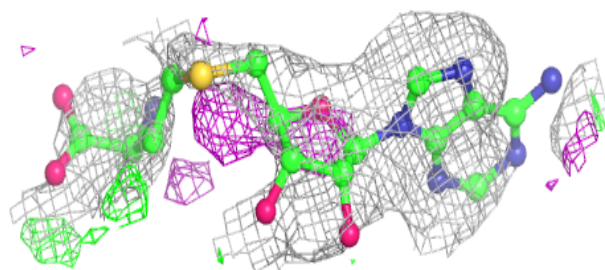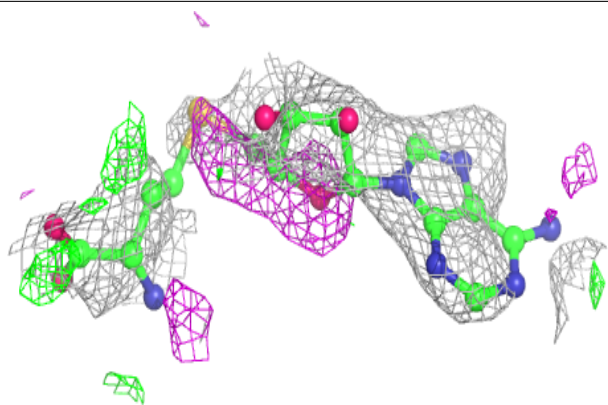
Electron density around SAH N 301:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
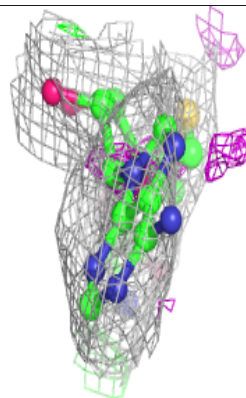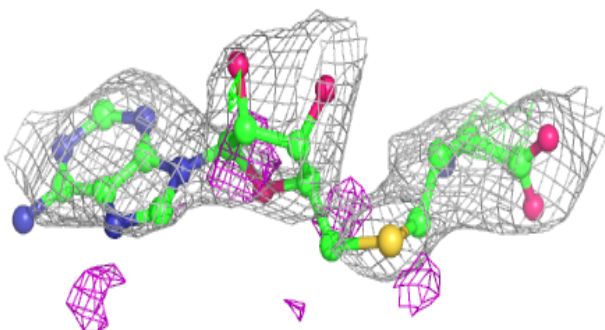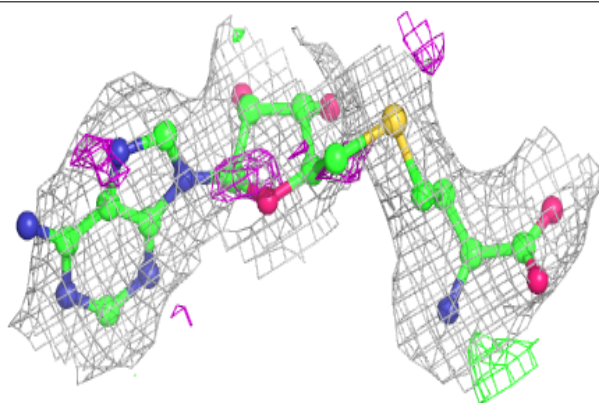
Electron density around SAH B 302:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
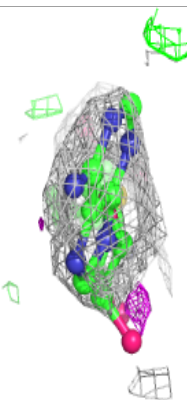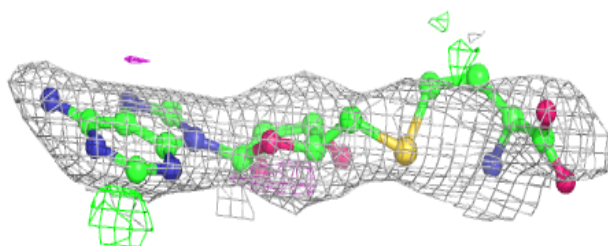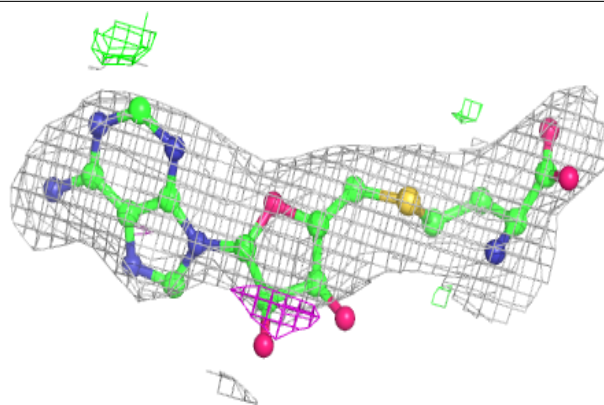
Electron density around SAH H 301:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
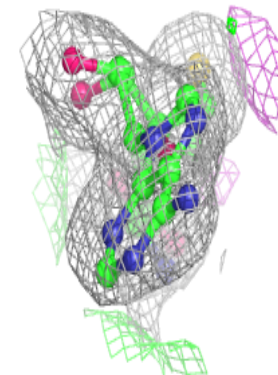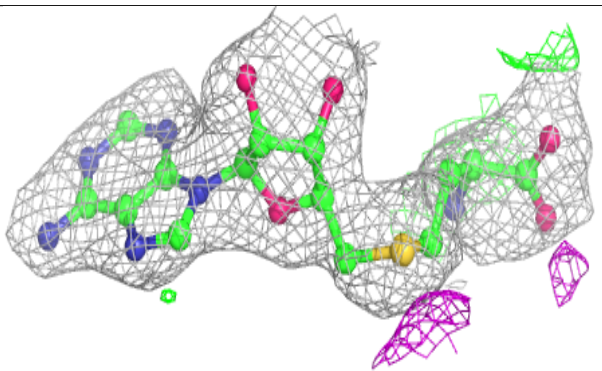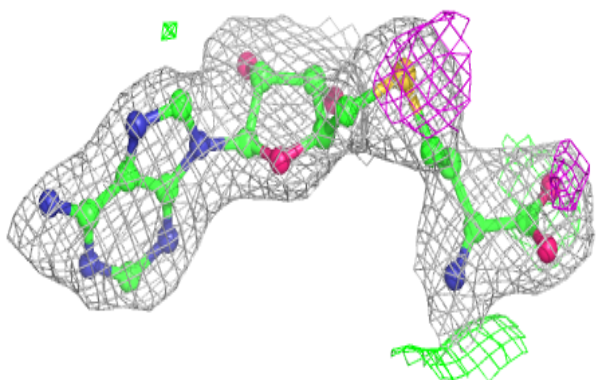and green (positive)
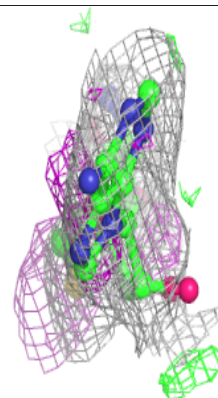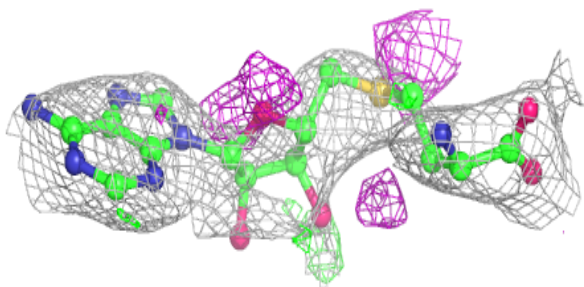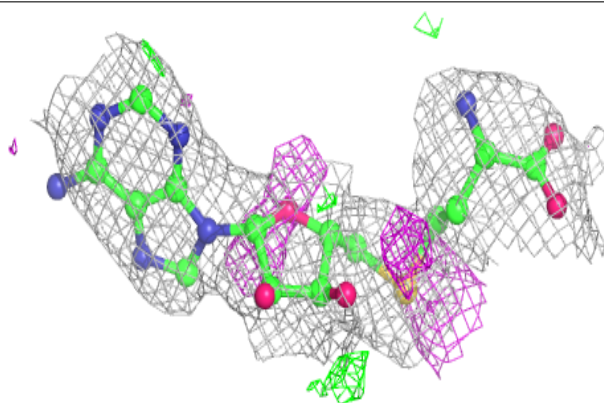
Electron density around SAH J 301:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
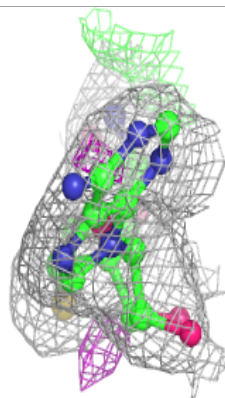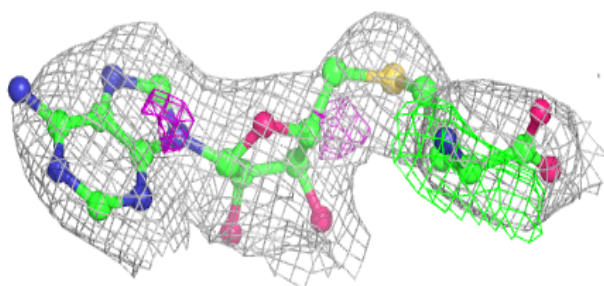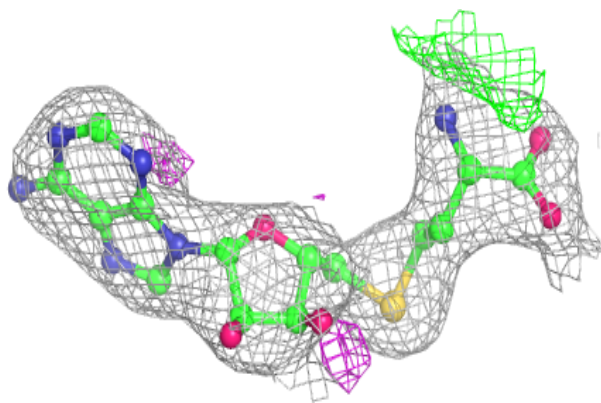
Electron density around SAH P 301:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
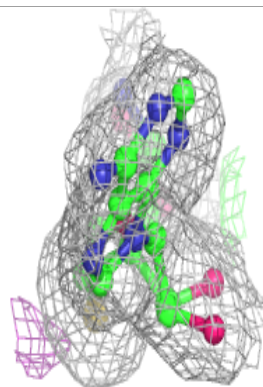and green (positive)

Electron density around SAH K 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around SAH L 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
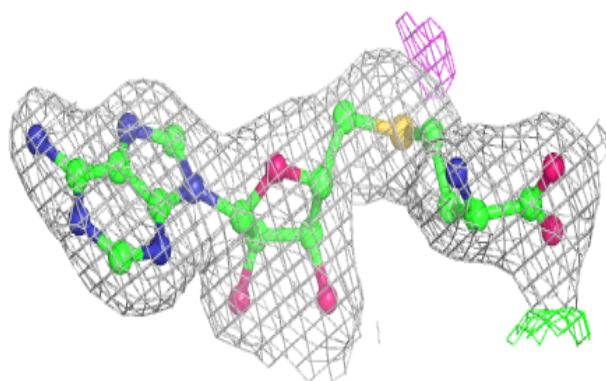and green (positive)
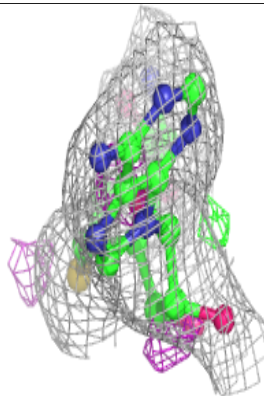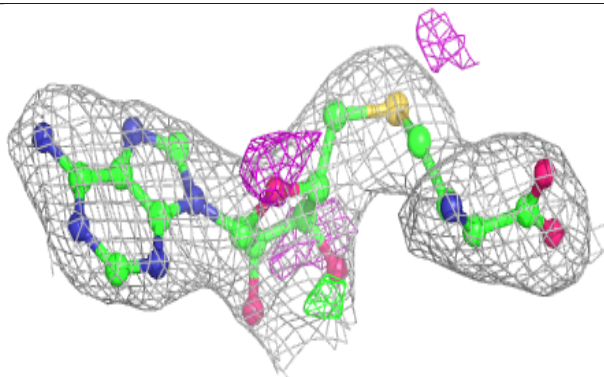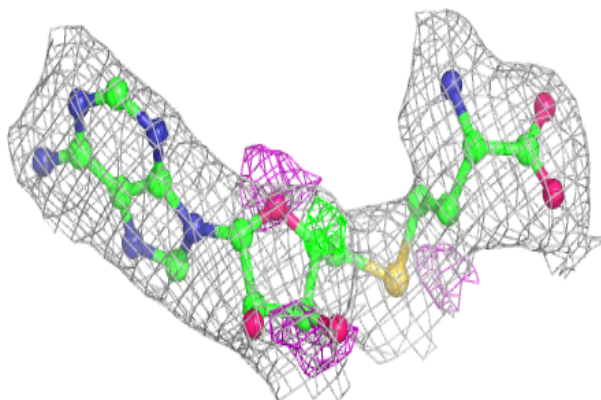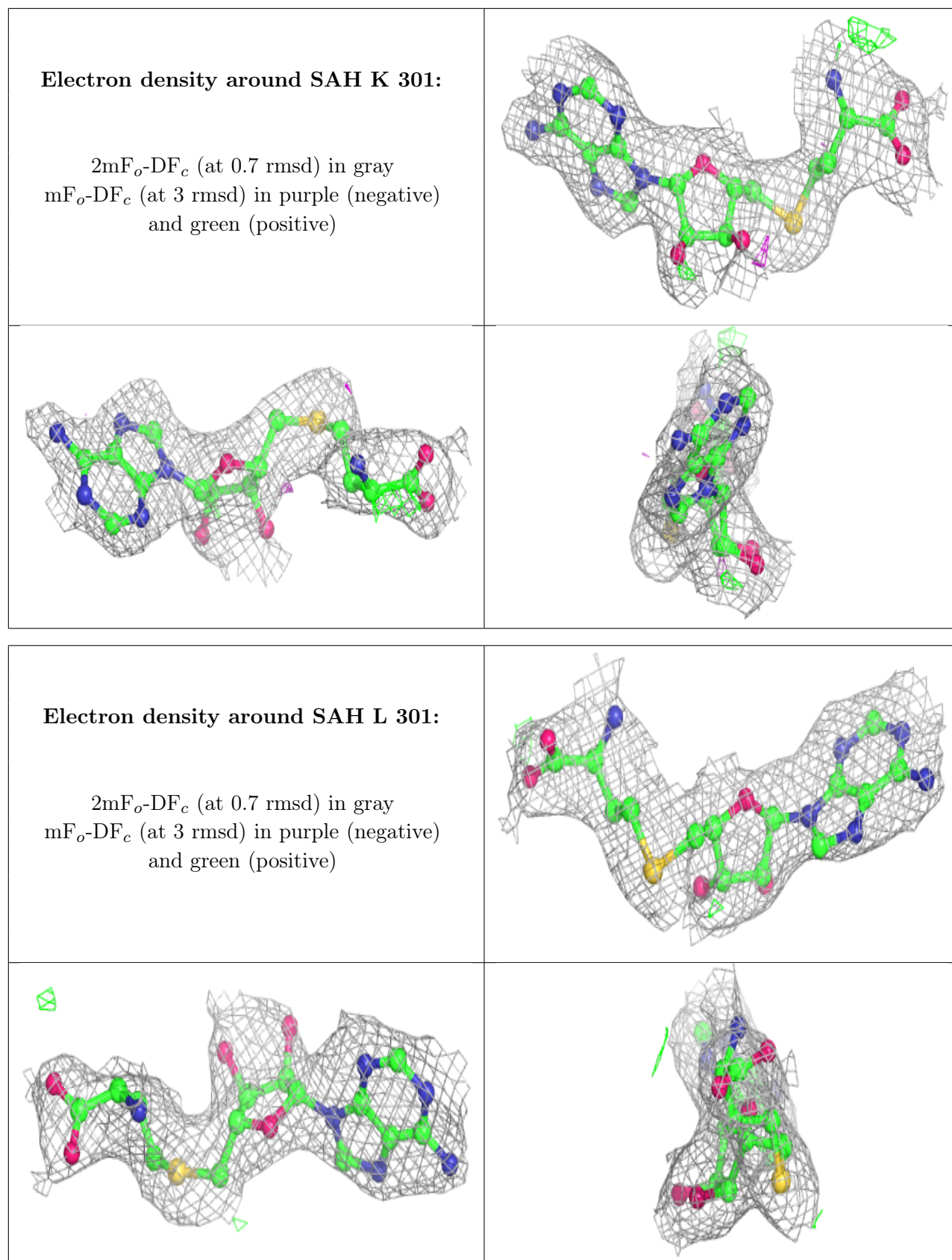
Electron density around SAH O 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
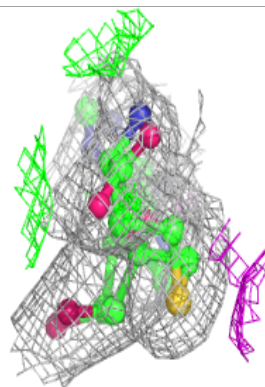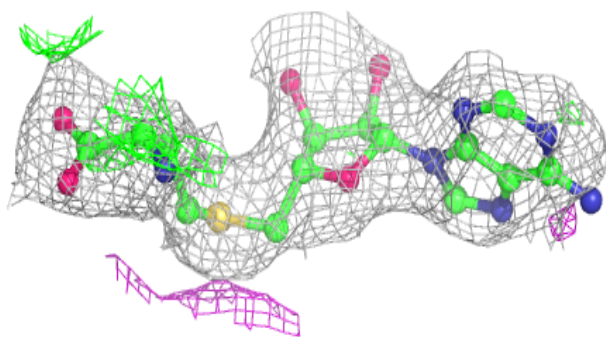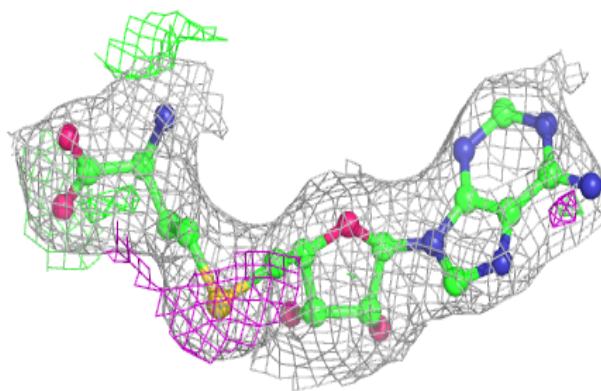
Electron density around SAH G 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
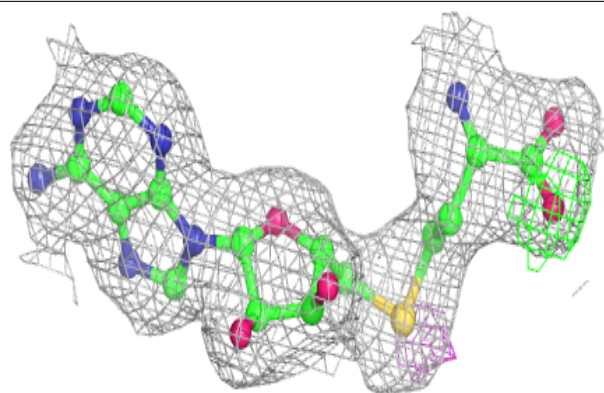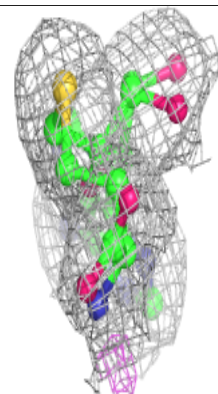and green (positive)
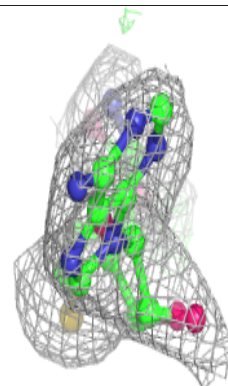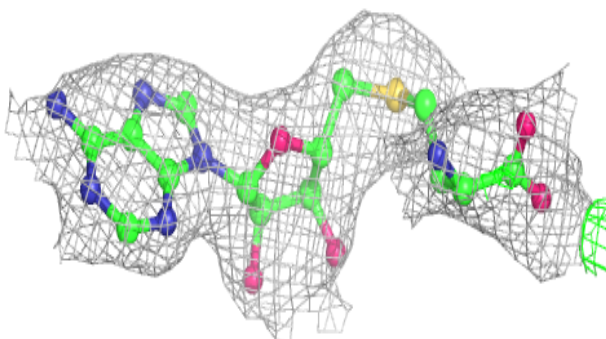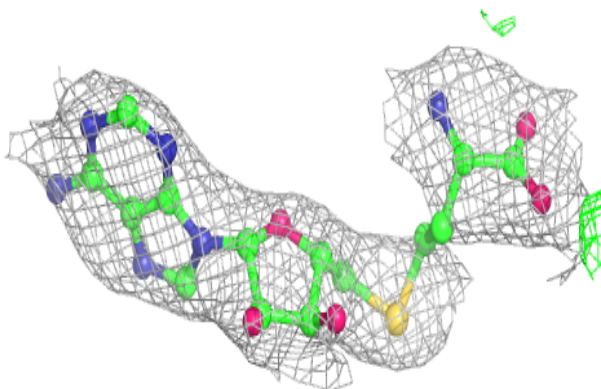
Electron density around SAH C 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
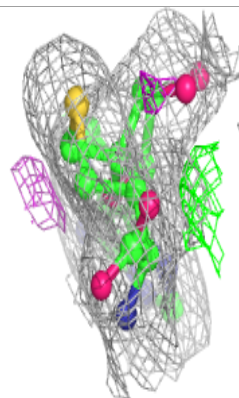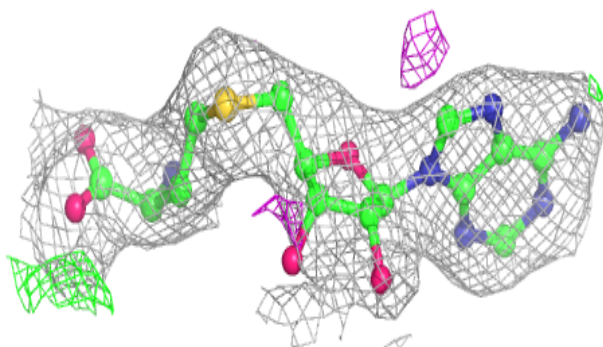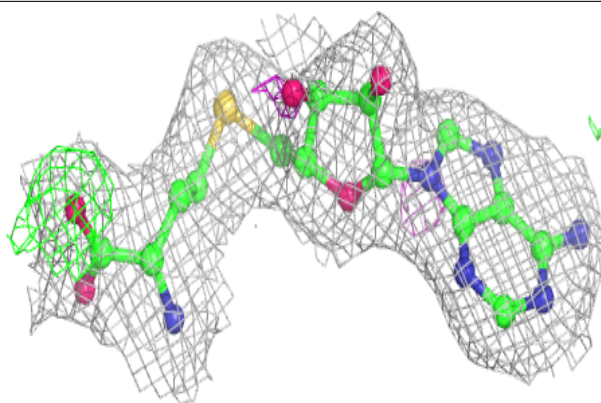
Electron density around SAH Q 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
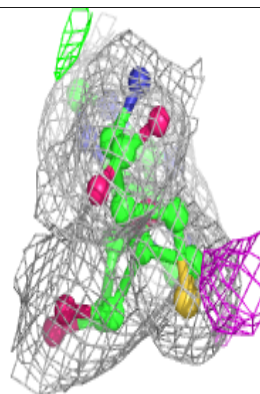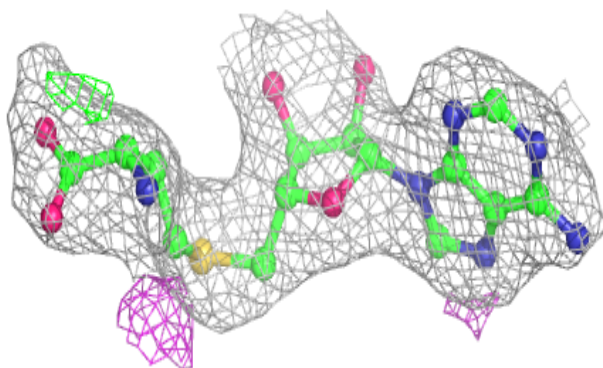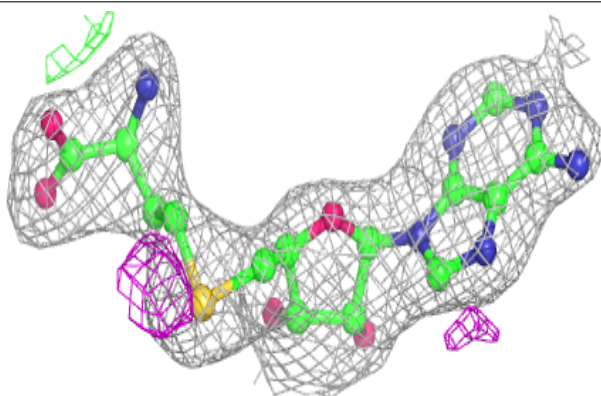
Electron density around SAH B 301:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
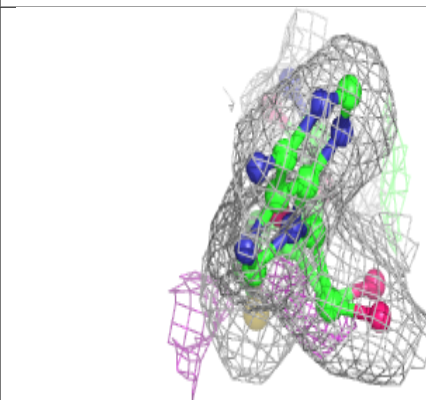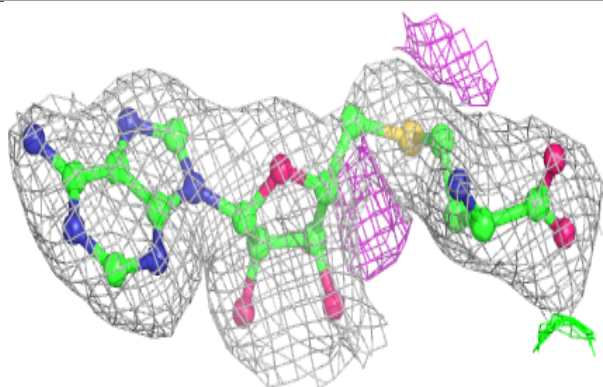
Electron density around SAH D 301:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
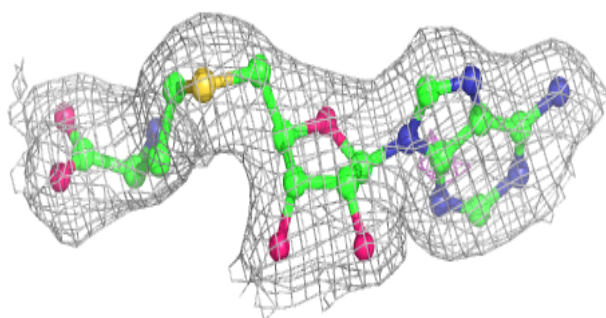$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
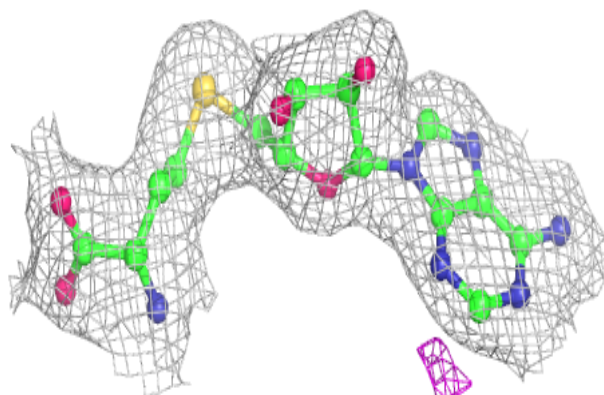and green (positive)

Electron density around SAH M 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around SAH E 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around SAH A 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
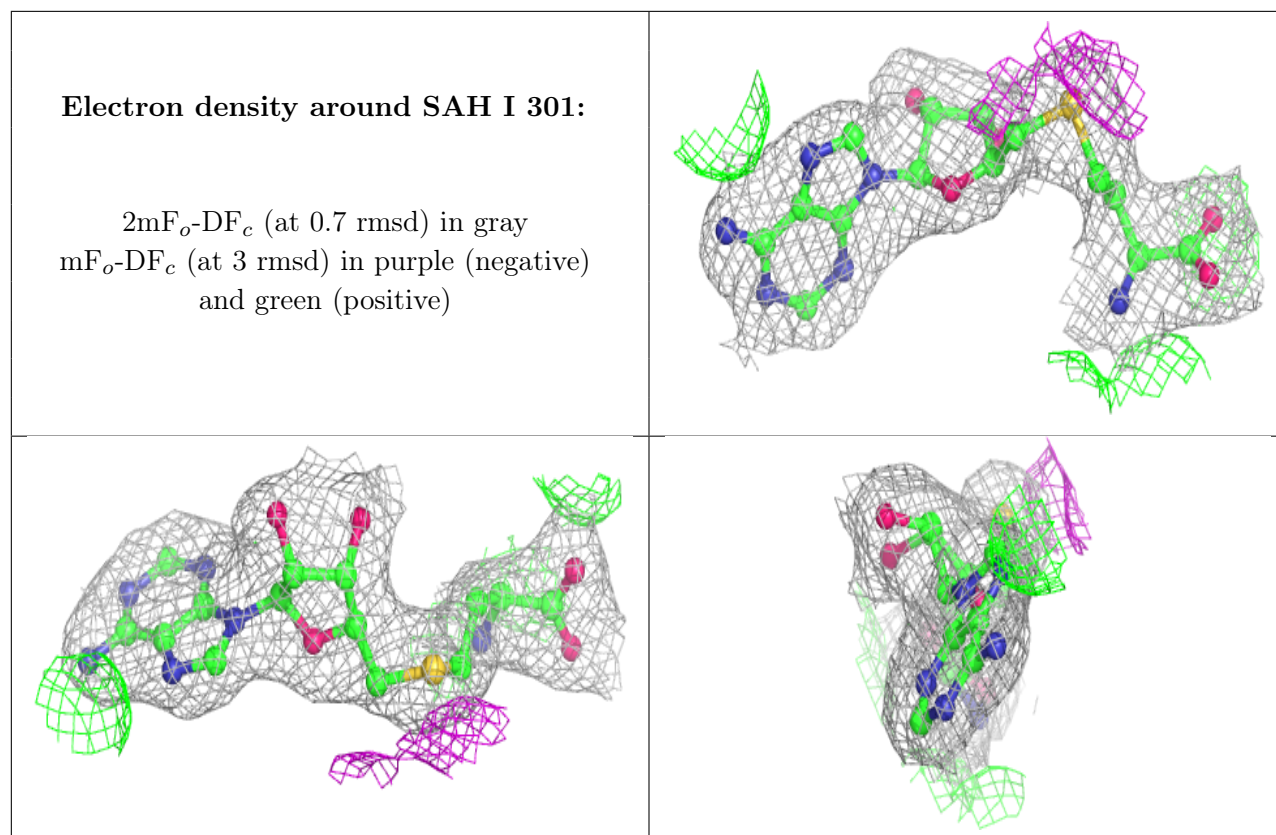mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around SAH F 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around SAH I 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

6.5　Other polymers　ⓘ

There are no such residues in this entry.